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```
Welcome to STN International!  Enter x:x

LOGINID:ssspta1204jxv

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 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'STNGUIDE' AT 14:18:56 ON 27 JAN 2003
FILE 'STNGUIDE' ENTERED AT 14:18:56 ON 27 JAN 2003
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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.66       7.57

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                       0.00      -0.65

=> d his

     (FILE 'HOME' ENTERED AT 14:00:36 ON 27 JAN 2003)

     FILE 'CAPLUS' ENTERED AT 14:00:53 ON 27 JAN 2003
L1             1 S 130:209820/DN

     FILE 'STNGUIDE' ENTERED AT 14:02:50 ON 27 JAN 2003

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.66       7.57

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                       0.00      -0.65

FILE 'REGISTRY' ENTERED AT 14:19:09 ON 27 JAN 2003
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provided by InfoChem.

STRUCTURE FILE UPDATES:   26 JAN 2003  HIGHEST RN 481631-75-8
DICTIONARY FILE UPDATES:  26 JAN 2003  HIGHEST RN 481631-75-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>
```

```
Uploading 09406269.str

L2      STRUCTURE UPLOADED

=> d
L2 HAS NO ANSWERS
L2              STR
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

Structure attributes must be viewed using STN Express query preparation.


=> s l2
SAMPLE SEARCH INITIATED 14:19:28 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    244 TO ITERATE

100.0% PROCESSED     244 ITERATIONS                                 2 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          3943 TO     5817
PROJECTED ANSWERS:                2 TO      123

L3            2 SEA SSS SAM L2

=> s l2 full
FULL SEARCH INITIATED 14:19:33 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   4735 TO ITERATE

100.0% PROCESSED    4735 ITERATIONS                              53 ANSWERS
SEARCH TIME: 00.00.01

L4           53 SEA SSS FUL L2

=> d scan

L4   53 ANSWERS   REGISTRY  COPYRIGHT 2003 ACS
IN   Phosphonic acid, [3-(3-aminocyclohexyl)-1-hydroxypropylidene]bis- (9CI)
MF   C9 H21 N O7 P2
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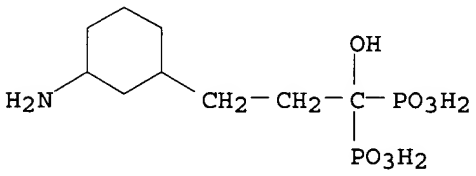


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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

L4   53 ANSWERS   REGISTRY  COPYRIGHT 2003 ACS
IN   Phosphonic acid, [3-[2-[[2-amino-3-[4-[bis(2-chloroethyl)amino]phenyl]-1-
     oxopropyl]amino]cyclopentyl]-1-hydroxypropylidene]bis- (9CI)
MF   C21 H35 Cl2 N3 O8 P2
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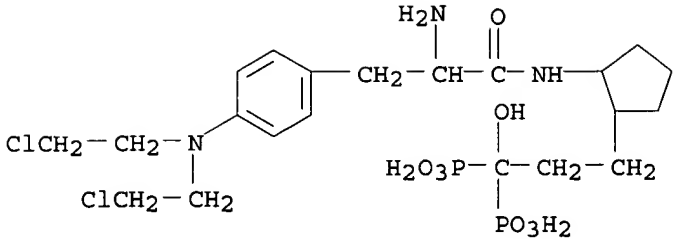
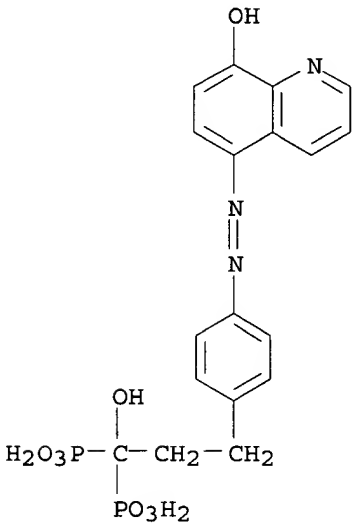


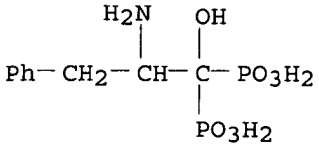
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 53 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Phosphonic acid, [1-hydroxy-3-[4-[(8-hydroxy-5-quinolinyl)azo]phenyl]propylidene]bis- (9CI)
MF C18 H19 N3 O8 P2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 53 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Phosphonic acid, (2-amino-1-hydroxy-3-phenylpropylidene)bis-, monosodium salt (9CI)
MF C9 H15 N O7 P2 . Na



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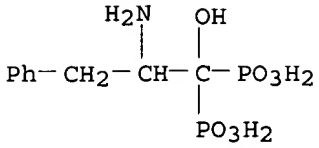
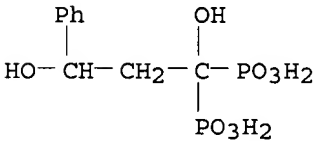
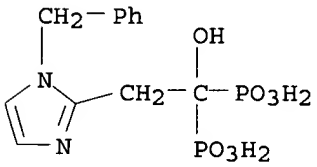


L4 53 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Phosphonic acid, (1,3-dihydroxy-3-phenylpropylidene)bis- (9CI)
MF C9 H14 O8 P2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

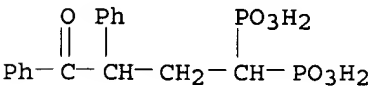
L4 53 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Phosphonic acid, [1-hydroxy-2-[1-(phenylmethyl)-1H-imidazol-2-yl]ethylidene]bis- (9CI)
MF C12 H16 N2 O7 P2



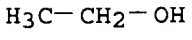
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 53 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Phosphonic acid, (4-oxo-3,4-diphenylbutylidene)bis-, diethyl ester, disodium salt (9CI)
MF C20 H26 O7 P2 . 2 Na
CI IDS

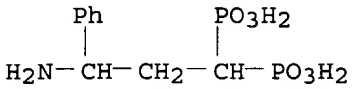
CM 1

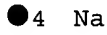


CM 2

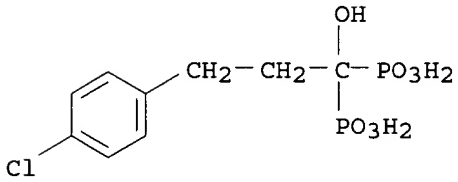


L4 53 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Phosphonic acid, (3-amino-3-phenylpropylidene)bis-, tetrasodium salt (9CI)
MF C9 H15 N O6 P2 . 4 Na



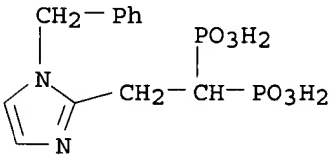


L4 53 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Phosphonic acid, [3-(4-chlorophenyl)-1-hydroxypropylidene]bis- (9CI)
MF C9 H13 Cl O7 P2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

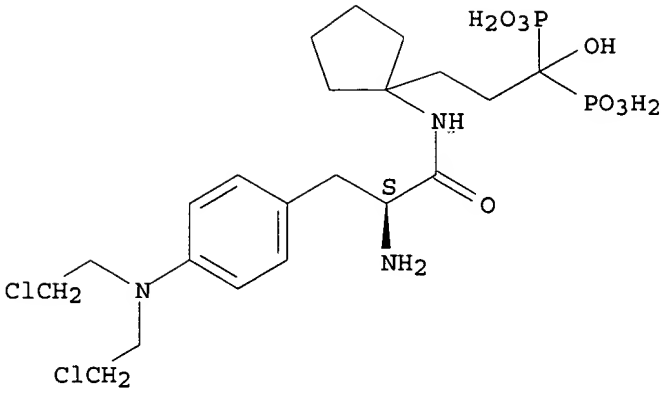
L4 53 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Phosphonic acid, [2-[1-(phenylmethyl)-1H-imidazol-2-yl]ethylidene]bis- (9CI)
MF C12 H16 N2 O6 P2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 53 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Phosphonic acid, [3-[1-[[2-amino-3-[4-[bis(2-chloroethyl)amino]phenyl]-1-oxopropyl]amino]cyclopentyl]-1-hydroxypropylidene]bis-, (S)- (9CI)
MF C21 H35 Cl2 N3 O8 P2

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	148.15	155.72

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-0.65

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FILE COVERS 1907 - 27 Jan 2003 VOL 138 ISS 5
FILE LAST UPDATED: 26 Jan 2003 (20030126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l4 and (blood or tissue factor or TF or thrombosis)
```
           33 L4
      1042405 BLOOD
         1131 BLOODS
      1042562 BLOOD
                (BLOOD OR BLOODS)
       546973 TISSUE
       275332 TISSUES
       706565 TISSUE
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                (TISSUE OR TISSUES)
         754434 FACTOR
         656539 FACTORS
        1193077 FACTOR
                (FACTOR OR FACTORS)
           3685 TISSUE FACTOR
                (TISSUE(W)FACTOR)
           9362 TF
            413 TFS
           9633 TF
                (TF OR TFS)
          15745 THROMBOSIS
L5            1 L4 AND (BLOOD OR TISSUE FACTOR OR TF OR THROMBOSIS)

=> d ibib abs hitstr

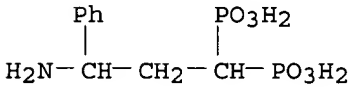
L5   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2001:833023  CAPLUS
DOCUMENT NUMBER:          135:376738
TITLE:                    Compounds and methods for modulating cerebral amyloid
                          angiopathy using inhibitors of an amyloid .beta.
                          peptide
INVENTOR(S):              Green, Allan M.; Gervais, Francine
PATENT ASSIGNEE(S):       Neurochem, Inc., Can.
SOURCE:                   PCT Int. Appl., 68 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     WO 2001085093      A2   20011115       WO 2000-IB2078   20001222
     WO 2001085093      A3   20020829
     WO 2001085093      C2   20020926
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
             ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 2001084313      A5   20011120       AU 2001-84313    20001222
     EP 1251837         A2   20021030       EP 2000-993855   20001222
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     BR 2000016652      A    20021119       BR 2000-16652    20001222
     US 2003003141      A1   20030102       US 2000-747408   20001222
PRIORITY APPLN. INFO.:                    US 1999-171877P  P  19991223
                                          WO 2000-IB2078   W  20001222
OTHER SOURCE(S):          MARPAT 135:376738
AB   The invention provides methods of inhibiting cerebral amyloid angiopathy
     (CAA) and treating a disease state characterized by cerebral amyloid
     angiopathy, e.g., Alzheimer's disease, in a subject using an inhibitor of
     the 39-40 amino acid amyloid .beta. peptide (A.beta.40). The A.beta.40
     inhibitor is selected from, e.g., sulfonic acid derivs., such as
     ethanesulfonic acid, 1,2-ethanedisulfonic acid, 1-propanesulfonic acid,
     1,3-propanedisulfonic acid, 1,4-butanedisulfonic acid,
     1,5-pentanedisulfonic acid, 2-aminoethanesulfonic acid,
     4-hydroxy-1-butanesulfonic acid, 1-butanesulfonic acid, 1-decanesulfonic
     acid, 2-propanesulfonic acid, 3-pentanesulfonic acid, 4-heptanesulfonic
```

acid, etc., and pharmaceutically acceptable salts thereof or from from phosphonic acid derivs., such as diethylphosphonoacetic acid, phenylphosphonic acid, 3-aminopropylphosphonic acid, propylphosphonic acid, etc. The compds. are formulated in a dispersion system, a liposome formulation, or microspheres using a polymeric matrix. The polymeric matrix is selected from natural polymers, such as albumin, alginate, cellulose derivs., collagen, fibrin, gelatin, and polysaccharides, or synthetic polymers such as polyesters, polyethylene glycol, poloxamers, and polyanhydrides. For example, the ability of compds. of the invention to inhibit CAA was measured in 9 wk old hAPP transgenic mice treated with two different concns. of a compd. of the present invention, 3-amino-1-propanesulfonic acid sodium salt, 100 and 30 mg/kg. Mice were administered the compd. for 8 wk, after which they were sacrificed and their brains were perfused and processed for histol. staining with Thioflavin S. This method may also be used as a screening method for detg. activity of a candidate compd. for inhibiting CAA. The extent of CAA in brain sections obtained from these animals was qual. detd. following staining. The results indicate that the test compd. was effective in (i) reducing the no. of mice showing CAA, and (ii) showing an effect on the severity of the deposition seen in the brain vasculature of these animals.

IT **373645-19-3 373645-22-8 373645-36-4**
373645-39-7 373645-41-1
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitors of amyloid .beta. peptide for modulating cerebral amyloid angiopathy)

RN 373645-19-3 CAPLUS
CN Phosphonic acid, (3-amino-3-phenylpropylidene)bis-, tetrasodium salt (9CI) (CA INDEX NAME)



RN 373645-22-8 CAPLUS
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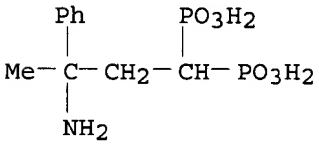
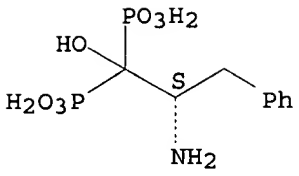


RN 373645-36-4 CAPLUS
CN Phosphonic acid, [(2S)-2-amino-1-hydroxy-3-phenylpropylidene]bis-, tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●4 Na

RN 373645-39-7 CAPLUS
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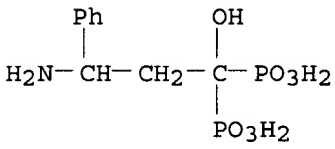

●4 Na

RN 373645-41-1 CAPLUS
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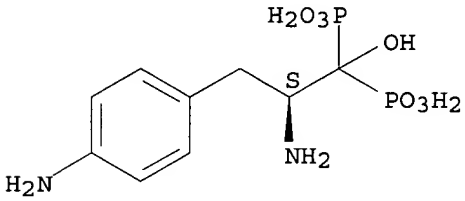
Absolute stereochemistry.



●4 Na

=> d his

(FILE 'HOME' ENTERED AT 14:00:36 ON 27 JAN 2003)

FILE 'CAPLUS' ENTERED AT 14:00:53 ON 27 JAN 2003
L1 1 S 130:209820/DN

FILE 'STNGUIDE' ENTERED AT 14:02:50 ON 27 JAN 2003

FILE 'REGISTRY' ENTERED AT 14:19:09 ON 27 JAN 2003
L2 STRUCTURE UPLOADED
L3 2 S L2
L4 53 S L2 FULL

FILE 'CAPLUS' ENTERED AT 14:19:52 ON 27 JAN 2003

```
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LOGINID:ssspta1204jxv

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2  Jan 25   BLAST(R) searching in REGISTRY available in STN on the Web
 NEWS  3  Jan 29   FSTA has been reloaded and moves to weekly updates
 NEWS  4  Feb 01   DKILIT now produced by FIZ Karlsruhe and has a new update
                   frequency
 NEWS  5  Feb 19   Access via Tymnet and SprintNet Eliminated Effective 3/31/02
 NEWS  6  Mar 08   Gene Names now available in BIOSIS
 NEWS  7  Mar 22   TOXLIT no longer available
 NEWS  8  Mar 22   TRCTHERMO no longer available
 NEWS  9  Mar 28   US Provisional Priorities searched with P in CA/CAplus
                   and USPATFULL
 NEWS 10  Mar 28   LIPINSKI/CALC added for property searching in REGISTRY
 NEWS 11  Apr 02   PAPERCHEM no longer available on STN.  Use PAPERCHEM2 instead.
 NEWS 12  Apr 08   "Ask CAS" for self-help around the clock
 NEWS 13  Apr 09   BEILSTEIN: Reload and Implementation of a New Subject Area
 NEWS 14  Apr 09   ZDB will be removed from STN
 NEWS 15  Apr 19   US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
 NEWS 16  Apr 22   Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
 NEWS 17  Apr 22   BIOSIS Gene Names now available in TOXCENTER
 NEWS 18  Apr 22   Federal Research in Progress (FEDRIP) now available
 NEWS 19  Jun 03   New e-mail delivery for search results now available
 NEWS 20  Jun 10   MEDLINE Reload
 NEWS 21  Jun 10   PCTFULL has been reloaded
 NEWS 22  Jul 02   FOREGE no longer contains STANDARDS file segment

 NEWS EXPRESS  February 1 CURRENT WINDOWS VERSION IS V6.0d,
               CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
               AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
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 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

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  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *



FILE 'HOME' ENTERED AT 14:34:46 ON 05 JUL 2002

=> file caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
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	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 14:35:02 ON 05 JUL 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 5 Jul 2002 VOL 137 ISS 2
FILE LAST UPDATED: 4 Jul 2002 (20020704/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

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=> s 6881-57-8 and pharmaceutical
   REGIstRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.



L2          120 L1


        158313 PHARMACEUTICAL
         68076 PHARMACEUTICALS
        197679 PHARMACEUTICAL
                  (PHARMACEUTICAL OR PHARMACEUTICALS)
L3            3 L2 AND PHARMACEUTICAL


=> d ibib abs 1-3

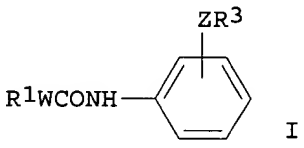
L3   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1999:421562  CAPLUS
DOCUMENT NUMBER:          131:87834
TITLE:                    Preparation of benzoxepinecarboxamides,
                          benzocycloheptenecarboxamides,
                          naphthalenecarboxamides, and related compounds as CCR5
                          antagonists.
INVENTOR(S):              Nishimura, Osamu; Baba, Masanori; Sawada, Hidekazu;
                          Kanzaki, Naoyuki; Kuroshima, Ken-ichi; Shiraishi,
                          Mitsuru; Aramaki, Yoshio
PATENT ASSIGNEE(S):       Takeda Chemical Industries, Ltd., Japan
SOURCE:                   PCT Int. Appl., 516 pp.
```

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9932100	A2	19990701	WO 1998-JP5708	19981217
WO 9932100	A3	19990910		
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2304959	AA	19990701	CA 1998-2304959	19981217
AU 9916831	A1	19990712	AU 1999-16831	19981217
ZA 9811574	A	20000619	ZA 1998-11574	19981217
EP 1039899	A2	20001004	EP 1998-961384	19981217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9813691	A	20001010	BR 1998-13691	19981217
JP 2000128782	A2	20000509	JP 1998-360820	19981218
US 6096780	A	20000801	US 1999-377040	19990819
US 6376536	B1	20020423	US 2000-580270	20000526
NO 2000003179	A	20000619	NO 2000-3179	20000619
US 6268354	B1	20010731	US 2000-661320	20000913

PRIORITY APPLN. INFO.:
JP 1997-351480 A 19971219
JP 1998-218875 A 19980803
JP 1998-234388 A 19980820
US 1998-104845P P 19981016
US 1998-104847P P 19981116
US 1998-213377 A3 19981217
WO 1998-JP5708 W 19981217
US 1999-377040 A3 19990819

OTHER SOURCE(S): MARPAT 131:87834
GI



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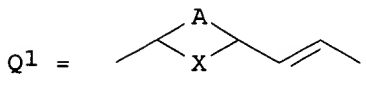
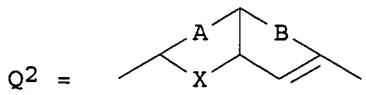




AB A **pharmaceutical** compn. for antagonizing CCR5 comprises I [R1 = (substituted) 5-6 membered ring; W = Q1, Q2; A = atoms to form a (substituted) 5-6 membered arom. ring; X = S, O, (substituted) C, N; B = atoms to form a (substituted) 5-7 membered ring; Z = bond, divalent group; R2 = (substituted) amino, ammonio, heterocyclyl, S-bonded group, P(O)kR5R6; k = 0, 1; R5, R6 = (substituted) hydrocarbyl, amino; PR5R6 = cyclic group]. Thus, 7-(4-methylphenyl)-2,3-dihydro-1-benzoxepine-4-carboxylic acid in CH2Cl2 was treated with (COCl)2 and DMF to give a

residue which was stirred with 4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]aniline and Et3N in THF to give N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-7-(4-methylphenyl)-2,3-dihydro-1-benzoxepine-4-carboxamide (II). A II capsule compn. is given.

L3 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:365054 CAPLUS
DOCUMENT NUMBER: 129:53610
TITLE: Inhibiting undesirable taste in oral compositions
INVENTOR(S): Nelson, Sandra Lynn; Walden, Gary Lyle; Hayes, Jeffrey Charles
PATENT ASSIGNEE(S): Procter + Gamble Company, USA
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

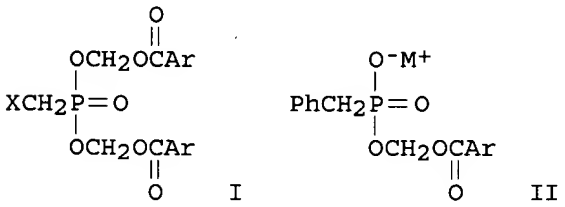
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 845217	A1	19980603	EP 1997-309034	19971111

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: US 1996-752088 19961120

AB The present invention relates to a method for inhibiting an undesirable taste in oral compns. such as foods, beverages, dental compns., and **pharmaceuticals**. The present invention also relates to oral and **pharmaceutical** compns. comprising undesirable tasting compds. wherein undesirable tastes are inhibited by the addn. of an inhibitor of intracellular phosphatase enzymes of taste cells to said oral and **pharmaceutical** compns. Said inhibitor is selected from phosphates, thiophosphates, phosphonates, vanadates, bisphosphates, bisphosphonates, phosphate-phosphonates, thiophosphate-phosphates, thiophosphate-phosphonates, their physiol.-relevant salts and esters, and mixts. thereof.

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:164348 CAPLUS
DOCUMENT NUMBER: 120:164348
TITLE: Synthesis and bioactivation of bis(aroyloxymethyl) and mono(aroyloxymethyl) esters of benzylphosphonate and phosphonoacetate
AUTHOR(S): Thomson, William; Nicholls, Dave; Mitchell, Antony G.; Corner, Julie A.; Irwin, William J.; Freeman, Sally
CORPORATE SOURCE: Dep. Pharm. Biol. Sci., Aston Univ., Aston Triangle/Birmingham, B4 7ET, UK
SOURCE: J. Chem. Soc., Perkin Trans. 1 (1993), (19), 2303-8
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB The bis(aroyloxymethyl) esters of benzylphosphonate, I (X = Ph, Ar = Ph, 2-MeC6H4 or 2,4,6-Me3C6H2), and methoxycarbonylmethylphosphonate, I (X = MeO2C, Ar = Ph, 2-MeC6H4 or 2,4,6-Me3C6H2), have been prepd. by reaction of 2 equiv. of the appropriate aroyloxymethyl iodide with the disilver salt of either benzylphosphonate or methoxycarbonylmethylphosphonate. The cyclohexylammonium salts of the mono(aroyloxymethyl) esters of benzylphosphonate, II (Ar = Ph, 2-MeC6H4 or 2,4,6-Me3C6H2, M+ = C6H11NH3+), were prepd. by reaction of silver benzyl benzylphosphonate with the appropriate aroyloxymethyl iodide, with subsequent hydrogenolysis to remove the P-OCH2Ph group. The bis(aroyloxymethyl) esters I (X = Ph or MeO2C, Ar = Ph, 2-MeC6H4 or 2,4,6-Me3C6H2) and the mono(aroyloxymethyl) salts II (Ar = Ph, 2-MeC6H4 or 2,4,6-Me3C6H2, M+ = C6H11NH3+) were stable towards chem. hydrolysis at 37.degree. at physiol. pH. In the presence of porcine liver carboxyesterase, the bis(aroyloxymethyl) esters of benzylphosphonate I (X = Ph, Ar = Ph or 2-MeC6H4) degraded to the mono(aroyloxymethyl) esters II (Ar = Ph or 2-MeC6H4), which showed slow hydrolysis to benzylphosphonate. For the bis(aroyloxymethyl) esters of methoxycarbonylmethylphosphonate I (X = MeO2C, Ar = Ph or 2-MeC6H4) there was competition between the esterase-catalyzed hydrolyses of the aroyloxymethyl and methoxycarbonyl groups. For the triester I (X = MeO2C, Ar = 2,4,6-Me3C6H2) cleavage of the methoxycarbonyl group was obsd.; hydrolysis of the sterically hindered 2,4,6-trimethylbenzoyl group was not detected for any compd. In regard to aiding charged drug transport across biol. membranes, the authors conclude that, unless a very slow release of parent drug is required, the aroyloxymethyl prodrug approach tested here does not offer any apparent advantage over acyloxymethyl or 4-acyloxybenzyl esters already described for several drugs contg. phospho groups.

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=> d his

     (FILE 'HOME' ENTERED AT 14:34:46 ON 05 JUL 2002)

     FILE 'CAPLUS' ENTERED AT 14:35:02 ON 05 JUL 2002
               S 6881-57-8/REG# AND PHARMACEUTICAL

     FILE 'REGISTRY' ENTERED AT 14:35:28 ON 05 JUL 2002
L1             1 S 6881-57-8/RN

     FILE 'CAPLUS' ENTERED AT 14:35:28 ON 05 JUL 2002
L2           120 S L1
L3             3 S L2 AND PHARMACEUTICAL

=> s l2 and (blood or disease)
        980345 BLOOD
          1126 BLOODS
        980525 BLOOD
                  (BLOOD OR BLOODS)
        535852 DISEASE
        137920 DISEASES
        604636 DISEASE
                  (DISEASE OR DISEASES)
L4             2 L2 AND (BLOOD OR DISEASE)

=> d ibib abs hitstr 1-2

L4   ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1999:421672  CAPLUS
DOCUMENT NUMBER:          131:73571
TITLE:                    Preparation of benzoxepinecarboxamides,
                          benzocycloheptenecarboxamides,
                          naphthalenecarboxamides, and related compounds as
                          MCP-1 receptor antagonists.
```
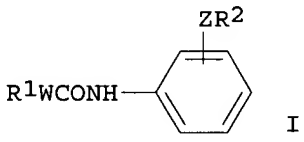

INVENTOR(S): Shiraishi, Mitsuru; Kitayoshi, Takahito; Aramaki, Yoshio; Honda, Susumu; Oda, Tsuneo
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 513 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9932468	A1	19990701	WO 1998-JP5707	19981217
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 9813686	A	20001010	BR 1998-13686	19981212
CA 2311428	AA	19990701	CA 1998-2311428	19981217
AU 9916830	A1	19990712	AU 1999-16830	19981217
AU 742077	B2	20011213		
ZA 9811576	A	20000619	ZA 1998-11576	19981217
EP 1040103	A1	20001004	EP 1998-961383	19981217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6166006	A	20001226	US 1998-213379	19981217
JP 11263764	A2	19990928	JP 1998-360780	19981218
NO 2000003133	A	20000809	NO 2000-3133	20000616
US 6413947	B1	20020702	US 2000-661194	20000913

PRIORITY APPLN. INFO.: JP 1997-351481 A 19971219
US 1998-213379 A3 19981217
WO 1998-JP5707 W 19981217

OTHER SOURCE(S): MARPAT 131:73571
GI



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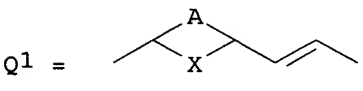
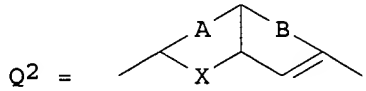
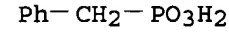




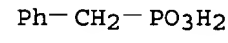
AB Title compds. I [R1 = (substituted) 5-6 membered ring; W = Q1, Q2; A = atoms to form a (substituted) 5-6 membered arom. ring; X = S, O, (substituted) C, N; B = atoms to form a (substituted) 5-7 membered ring; Z = bond, divalent group; R2 = (substituted) amino, ammonio, heterocyclyl, S-bonded group, P(O)kR5R6; k = 0, 1; R5, R6 = (substituted) hydrocarbyl, amino; PR5R6 = cyclic group], were prepd. Thus, 7-(4-methylphenyl)-2,3-dihydro-1-benzoxepine-4-carboxylic acid in CH2Cl2 was treated with (COCl)2 and DMF to give a residue which was stirred with 4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]aniline and Et3N in THF to give N-[4-[N-methyl-N-(tetrahydropyran-4-yl)aminomethyl]phenyl]-7-(4-methylphenyl)-2,3-dihydro-1-benzoxepine-4-carboxamide (II). II at 1 .mu.M inhibited MCP-1 induced chemotaxis in CHO cells by 89%. A II capsule compn. is given.

IT **6881-57-8P**, Benzylphosphonic acid
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of benzoxepinecarboxamides, benzocycloheptenecarboxamides, naphthalenecarboxamides, and related compds. as MCP-1 receptor antagonists)
RN 6881-57-8 CAPLUS
CN Phosphonic acid, (phenylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:570552 CAPLUS
DOCUMENT NUMBER: 109:170552
TITLE: Study of calcium inhibitors of an oxygenated heterocycle series.
AUTHOR(S): Mouysset, G.; Bellan, J.; Payard, M.; Tisne-Versailles, J.
CORPORATE SOURCE: Fac. Pharm., Univ. Toulouse, Toulouse, Fr.
SOURCE: Farmaco, Ed. Sci. (1987), 42(11), 805-13
CODEN: FRPSAX; ISSN: 0430-0920
DOCUMENT TYPE: Journal
LANGUAGE: French
AB Seven RCH2P(O)(OEt)2 (I; R = Ph, 2-naphthyl, 2-benzofuryl, etc.) were prepd. from RCH2Cl and P(OEt)3. Hydrolysis of I gave RCH2PO3H2 (II). I and II showed lower Ca inhibitory activity than did Fostedil.
IT **6881-57-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn., hydrolysis, and calcium inhibitory activity of)
RN 6881-57-8 CAPLUS
CN Phosphonic acid, (phenylmethyl)- (9CI) (CA INDEX NAME)



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FULL ESTIMATED COST	23.74	24.73
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.10	-3.10

FILE 'REGISTRY' ENTERED AT 14:38:00 ON 05 JUL 2002

STRUCTURE FILE UPDATES: 4 JUL 2002 HIGHEST RN 437552-19-7
DICTIONARY FILE UPDATES: 4 JUL 2002 HIGHEST RN 437552-19-7

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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L6       801287 1/P

=> s l6 and phosphonic acid
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        5470217 ACID
           7807 ACIDS
        5475900 ACID
                  (ACID OR ACIDS)
         101684 PHOSPHONIC ACID
                  (PHOSPHONIC(W)ACID)
L7        80370 L6 AND PHOSPHONIC ACID

=> s 1/nr
L8      2810784 1/NR

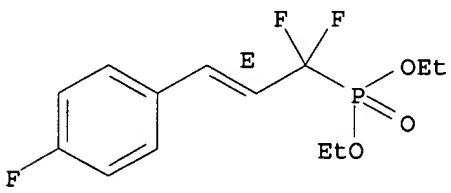
=> s l7 and l8
L9        25016 L7 AND L8

=> s l9 and (phenyl or benzyl)
        8010973 PHENYL
             14 PHENYLS
        8010973 PHENYL
                  (PHENYL OR PHENYLS)
         201191 BENZYL
              8 BENZYLS
         201191 BENZYL
                  (BENZYL OR BENZYLS)
L10       12910 L9 AND (PHENYL OR BENZYL)

=> d scan

L10  12910 ANSWERS   REGISTRY  COPYRIGHT 2002 ACS
IN   Phosphonic acid, [(2E)-1,1-difluoro-3-(4-fluorophenyl)-2-propenyl]-,
     diethyl ester (9CI)
MF   C13 H16 F3 O3 P
```

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

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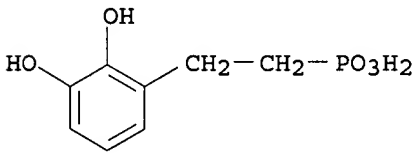
3582618 ESTER
4688 ESTERS
3587090 ESTER
(ESTER OR ESTERS)
L11 2322 L10 NOT ESTER

=> d scan

L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN **Phosphonic acid, [2-(2,3-dihydroxyphenyl)ethyl]- (9CI)**
MF **C8 H11 O5 P**

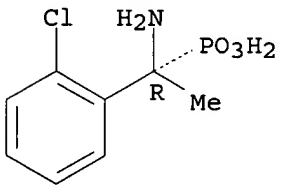


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):10

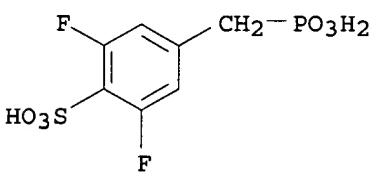
L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN **Phosphonic acid, [(1R)-1-amino-1-(2-chlorophenyl)ethyl]- (9CI)**
MF **C8 H11 Cl N O3 P**

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

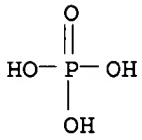
L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Benzenesulfonic acid, 2,6-difluoro-4-(phosphonomethyl)- (9CI)
MF **C7 H7 F2 O6 P S**



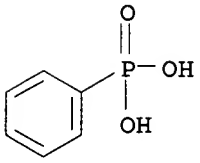
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN **Phosphoric acid, zirconium(4+) salt, compd. with phenylphosphonic acid (10:5:4), pentahydrate (9CI)**
MF **C6 H7 O3 P . 5/2 H3 O4 P . 5/4 H2 O . 5/4 Zr**

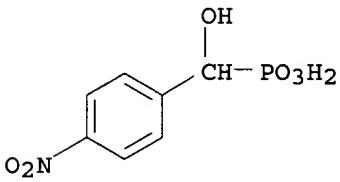
CM 1



CM 2



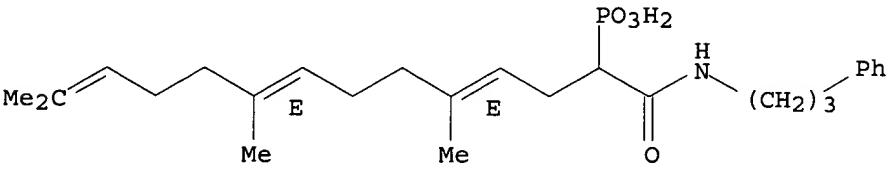
L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN **Phosphonic acid, [hydroxy(4-nitrophenyl)methyl]- (9CI)**
MF **C7 H8 N O6 P**



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

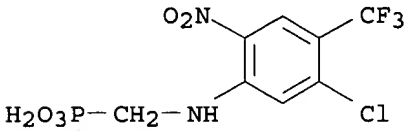
L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN **Phosphonic acid, [4,8,12-trimethyl-1-[[(3-phenylpropyl)amino]carbonyl]-3,7,11-tridecatrienyl]-, (E,E)- (9CI)**
MF **C26 H40 N O4 P**

Double bond geometry as shown.



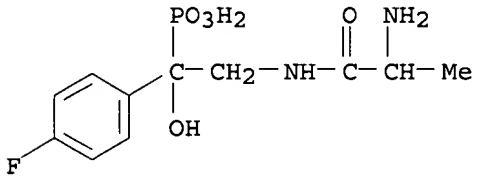
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN **Phosphonic acid, [[[5-chloro-2-nitro-4-(trifluoromethyl)phenyl]amino] methyl]- (9CI)**
MF **C8 H7 Cl F3 N2 O5 P**



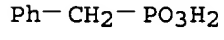
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

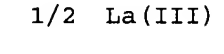
L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN **Phosphonic acid, [2-[[2-amino-1-oxopropyl]amino]-1-(4-fluorophenyl)-1-hydroxyethyl]- (9CI)**
MF **C11 H16 F N2 O5 P**



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

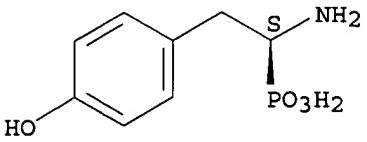
L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN **Phosphonic acid, (phenylmethyl)-, lanthanum(3+) salt (2:1), dihydrate (9CI)**
MF **C7 H9 O3 P . H2 O . 1/2 La**





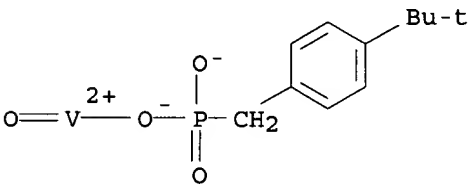
L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN **Phosphonic acid, [1-amino-2-(4-hydroxyphenyl)ethyl]-, hydrochloride, (S)- (9CI)**
MF **C8 H12 N O4 P . Cl H**

Absolute stereochemistry.



● HCl

L11 2322 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN **Vanadium, [[[4-(1,1-dimethylethyl)phenyl]methyl]phosphonato(2-)-O]oxo-(9CI)**
MF **C11 H15 O4 P V**
CI CCS, COM



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

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0 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

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37085937 1/NC
L12 1612 L11 AND 1/NC

=> s l12 not m/els
3301444 M/ELS
L13 1585 L12 NOT M/ELS

=> s l13 and 3/o
2973275 3/O
L14 643 L13 AND 3/O

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	41.14	65.87

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-3.10

FILE 'CAPLUS' ENTERED AT 14:40:01 ON 05 JUL 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 5 Jul 2002 VOL 137 ISS 2
FILE LAST UPDATED: 4 Jul 2002 (20020704/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

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=> s l14 (l) pharmaceutical
          1834 L14
        158313 PHARMACEUTICAL
         68076 PHARMACEUTICALS
        197679 PHARMACEUTICAL
                 (PHARMACEUTICAL OR PHARMACEUTICALS)
L15          1 L14 (L) PHARMACEUTICAL

=> d

L15  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2002 ACS
AN   2000:531658  CAPLUS
DN   133:144896
TI   Phosphonated agents and their antiangiogenic and antitumorigenic use
IN   Collins, Delwood C.; Gagliardi, Antonio R.; Nickel, Peter
PA   University of Kentucky Research Foundation, USA
SO   U.S., 21 pp., Cont.-in-part of U.S. Ser. No. 899,996, abandoned.
     CODEN: USXXAM
DT   Patent
LA   English
FAN.CNT 2
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
PI   US 6096730         A    20000801       US 1998-121124   19980723
     US 6160166         A    20001212       US 1999-357925   19990721
PRAI US 1997-899996     B2   19970724
     US 1998-121124     A3   19980723
OS   MARPAT 133:144896
RE.CNT  16    THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> d hitstr

L15  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2002 ACS
IT   5337-17-7, 4-Aminobenzenephosphonic acid
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (prepn. and pharmaceutical compn. of antiangiogenic and
        antitumorigenic phosphonic acid agents)
RN   5337-17-7  CAPLUS
```

L5 1 S L4 AND (BLOOD OR TISSUE FACTOR OR TF OR THROMBOSIS)

=> s phosphonic acid and thrombosis
18832 PHOSPHONIC
5 PHOSPHONICS
18835 PHOSPHONIC
(PHOSPHONIC OR PHOSPHONICS)
3529172 ACID
1349230 ACIDS
3992609 ACID
(ACID OR ACIDS)
16601 PHOSPHONIC ACID
(PHOSPHONIC(W)ACID)
15745 THROMBOSIS
L6 4 PHOSPHONIC ACID AND THROMBOSIS

update STN search Jan 2003

=> d ibib abs 1-4

L6 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:409274 CAPLUS
DOCUMENT NUMBER: 137:723
TITLE: Use of bisphosphonates for treatment or prophylaxis of undesired **thrombosis**
INVENTOR(S): Jiao, Jin-an; Luepschen, Lawrence K.; Nieves, Esperanza L.; Wong, Hing C.; Taylor, Dean P.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 29 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002065327	A1	20020530	US 1999-406269	19990924

PRIORITY APPLN. INFO.: US 1999-406269 19990924
OTHER SOURCE(S): MARPAT 137:723
AB The invention discusses phosphonates, esp. bisphosphonates for treatment or prophylaxis of undesired **thrombosis**. The invention also discloses method of treatment as well as pharmaceutical compns. that utilize or comprise one or more of these compds.

L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:208284 CAPLUS
DOCUMENT NUMBER: 134:252467
TITLE: Preparation of **phosphonic acid** derivatives having carboxypeptidase B inhibitory activity
INVENTOR(S): Fushihara, Kenichi; Kikuchi, Chika; Matsushima, Tetsuya; Kanemoto, Kenichi; Satoh, Eriko; Yamamoto, Takehiro; Suzuki, Kokichi
PATENT ASSIGNEE(S): Meiji Seika Kaisha, Ltd., Japan
SOURCE: PCT Int. Appl., 129 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001019836	A1	20010322	WO 2000-JP6248	20000913

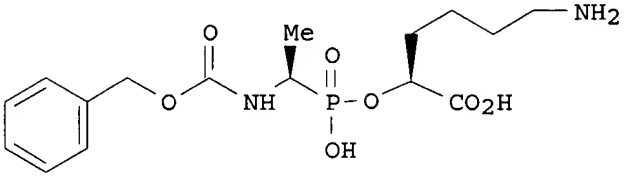
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1152004	A1	20011107	EP 2000-960970	20000913
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, PT, IE, SI, LT, LV, FI, RO				
EP 1174434	A1	20020123	EP 2001-125712	20000913
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000014615	A	20020618	BR 2000-14615	20000913
JP 2002201196	A2	20020716	JP 2001-337503	20000913

PRIORITY APPLN. INFO.:	JP 1999-260993	A 19990914
	JP 2000-84145	A 20000324
	EP 2000-960970	A3 20000913
	JP 2001-523413	A3 20000913
	WO 2000-JP6248	W 20000913

OTHER SOURCE(S): MARPAT 134:252467
GI



I

AB Title compds. [R1CONHCR2R3P(O)(OH)XC(A)(E)CO2H; wherein R1 represents hydrogen, alkyl, substituted alkyl, etc.; R2 and R3 each represents hydrogen, alkyl, substituted alkyl, alkoxy, etc.; X represents CH2, O, or NH; A represents a group represented by formula (R7R8N(CR9R10)m) (wherein R7 and R8 each represents hydrogen, alkyl, acyl, alkoxycarbonyl, etc.; and R9 and R10 each represents hydrogen, halogeno, hydroxy, Ph, alkyl, etc.), etc.; E represents hydrogen, etc.] and pharmacol. acceptable salts are prepd. These compds. have carboxypeptidase B inhibitory activity and are useful for the treatment and/or prevention of thrombotic diseases in mammal. Thus, the title compd. I was prepd. and tested.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:	2000:323253 CAPLUS
DOCUMENT NUMBER:	132:334655
TITLE:	preparation of himbacine analogs as thrombin receptor antagonists
INVENTOR(S):	Chackalamannil, Samuel; Asberom, Theodros; Xia, Yan; Doller, Dario; Clasby, Martin C.; Czarniecki, Michael F.
PATENT ASSIGNEE(S):	Schering Corp., USA
SOURCE:	U.S., 161 pp. CODEN: USXXAM
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

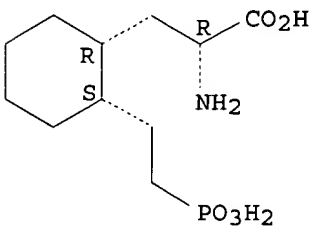
ACCESSION NUMBER: 1995:223077 CAPLUS
DOCUMENT NUMBER: 122:96228
TITLE: Competitive N-methyl-D-aspartate receptor blockade reduces brain injury following transient focal ischemia in cats
AUTHOR(S): Nishikawa, Toshiaki; Kirsch, Jeffrey R.; Koehler, Raymond C.; Miyabe, Masayuki; Traystman, Richard J.
CORPORATE SOURCE: Department of Anesthesiology and Critical Care Medicine, Johns Hopkins Medical Institutions, Baltimore, MD, 21287-4963, USA
SOURCE: Stroke (1994), 25(11), 2258-64
CODEN: SJCCA7; ISSN: 0039-2499
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We tested the hypothesis that administration of the competitive N-methyl-D-aspartate (NMDA) receptor antagonist NPC 17742 (2R,4R,5S-[2-amino-4,5-(1,2-cyclohexyl)-7-phosphonoheptanoic acid]) during transient focal ischemia affects early postischemic brain injury. Halothane-anesthetized cats underwent 1 h of left middle cerebral artery occlusion plus 4 h of reperfusion. Control cats received saline (n=7). Exptl. cats were treated with NPC 17742 at a dose of 5 mg/kg IV from 45 min of ischemia to 15 min of reperfusion and 2.5 mg/kg per h for 4 h of reperfusion (NPC-5; n=7) or 50 mg/kg from 45 min of ischemia to 15 min of reperfusion and 25 mg/kg per h for 4 h of reperfusion (NPC-50; n=5). Microsphere-detd. **blood** flow to the ipsilateral inferior temporal cortex and caudate nucleus decreased to the same extent during ischemia and recovered to the same extent during reperfusion in the three groups. Triphenyltetrazolium-detd. injury vol. of ipsilateral cerebral hemisphere (saline, 24.+-.8%; NPC-5, 4.+-.2%; NPC-50, 5.+-.2% of hemisphere; mean.+-.SE) and caudate nucleus (saline, 72.+-.6%; NPC-5, 37.+-.10%; NPC-50, 26.+-.4%) was less in cats treated with both doses of drug compared with cats treated with saline. Recovery of somatosensory evoked potential amplitude was incomplete and similar in all groups (saline, 36.+-.14%; NPC-5, 58.+-.8%; NPC-50, 51.+-.15% of baseline). These data indicate that activation of NMDA receptors plays an important role in the mechanism of acute injury in both cortex and caudate after 1 h of transient focal ischemia in the cat. Because NPC 17742 afforded protection when administered at the end of ischemia and during reperfusion, NMDA receptor activation during reperfusion may contribute to the progression of injury in ischemic border regions.

IT **144301-37-1**, NPC 17742
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(competitive N-methyl-D-aspartate receptor blockade reduces brain injury following transient focal ischemia in cats)

RN 144301-37-1 CAPLUS
CN Cyclohexanepropanoic acid, .alpha.-amino-2-(2-phosphonoethyl)-, (.alpha.R,1R,2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



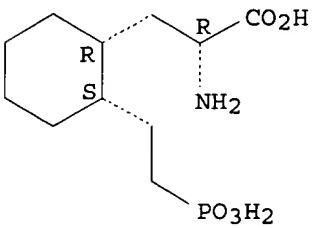
ACCESSION NUMBER: 1995:223077 CAPLUS
DOCUMENT NUMBER: 122:96228
TITLE: Competitive N-methyl-D-aspartate receptor blockade reduces brain injury following transient focal ischemia in cats
AUTHOR(S): Nishikawa, Toshiaki; Kirsch, Jeffrey R.; Koehler, Raymond C.; Miyabe, Masayuki; Traystman, Richard J.
CORPORATE SOURCE: Department of Anesthesiology and Critical Care Medicine, Johns Hopkins Medical Institutions, Baltimore, MD, 21287-4963, USA
SOURCE: Stroke (1994), 25(11), 2258-64
CODEN: SJCCA7; ISSN: 0039-2499
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We tested the hypothesis that administration of the competitive N-methyl-D-aspartate (NMDA) receptor antagonist NPC 17742 (2R,4R,5S-[2-amino-4,5-(1,2-cyclohexyl)-7-phosphonoheptanoic acid]) during transient focal ischemia affects early postischemic brain injury. Halothane-anesthetized cats underwent 1 h of left middle cerebral artery occlusion plus 4 h of reperfusion. Control cats received saline (n=7). Exptl. cats were treated with NPC 17742 at a dose of 5 mg/kg IV from 45 min of ischemia to 15 min of reperfusion and 2.5 mg/kg per h for 4 h of reperfusion (NPC-5; n=7) or 50 mg/kg from 45 min of ischemia to 15 min of reperfusion and 25 mg/kg per h for 4 h of reperfusion (NPC-50; n=5). Microsphere-detd. **blood** flow to the ipsilateral inferior temporal cortex and caudate nucleus decreased to the same extent during ischemia and recovered to the same extent during reperfusion in the three groups. Triphenyltetrazolium-detd. injury vol. of ipsilateral cerebral hemisphere (saline, 24.+-.8%; NPC-5, 4.+-.2%; NPC-50, 5.+-.2% of hemisphere; mean.+-.SE) and caudate nucleus (saline, 72.+-.6%; NPC-5, 37.+-.10%; NPC-50, 26.+-.4%) was less in cats treated with both doses of drug compared with cats treated with saline. Recovery of somatosensory evoked potential amplitude was incomplete and similar in all groups (saline, 36.+-.14%; NPC-5, 58.+-.8%; NPC-50, 51.+-.15% of baseline). These data indicate that activation of NMDA receptors plays an important role in the mechanism of acute injury in both cortex and caudate after 1 h of transient focal ischemia in the cat. Because NPC 17742 afforded protection when administered at the end of ischemia and during reperfusion, NMDA receptor activation during reperfusion may contribute to the progression of injury in ischemic border regions.

IT **144301-37-1**, NPC 17742
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(competitive N-methyl-D-aspartate receptor blockade reduces brain injury following transient focal ischemia in cats)

RN 144301-37-1 CAPLUS
CN Cyclohexanepropanoic acid, .alpha.-amino-2-(2-phosphonoethyl)-, (.alpha.R,1R,2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6063847	A	20000516	US 1998-197442	19981123
US 6326380	B1	20011204	US 2000-545720	20000407

PRIORITY APPLN. INFO.: US 1997-66518P P 19971125
US 1998-197442 A3 19981123

OTHER SOURCE(S): MARPAT 132:334655
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Heterocyclic-substituted tricyclics of the formula (I) [single dotted line represents an optional double bond; double dotted line represents an optional single bond; n = 0-2; Q =(un)substituted cycloalkyl, heterocycloalkyl, aryl or heteroaryl; Het = (un)substituted mono-, bi- or tricyclic heteroarom. group; B = -(CH2)n3-, wherein n3 is 0-5, -CH2-O-, -CH2S-, -CH2-NR6-, -C(O)NR6-. -NR6C(O)-, etc.; X = -O- or -NR6- when the double dotted line represents a single bond, or X is -OH or -NHR20 when the bond is absent; Y = =O, =S, (H, H), (H, OH) or (H, alkoxy) when the double dotted line represents a single bond, or when the bond is absent, Y =O, (H, H), (H, OH), (H, SH) or (H, C1-C6 alkoxy); R15 is absent when the double dotted line represents a single bond and is H, -NR18R19, or -OR17 when the bond is absent; or Y = -O-(CH2)m-O- or -S-(CH2)m-S-, m = 1-2; and R15, R17, R18, R19 = H or alkyl, aryl etc.] or a pharmaceutically acceptable salt were synthesized. Thus (II) was prepd. starting from (R)-3-butyn-2-ol and via condensation of fragment (III) and [5-[3-(trifluoromethyl)phenyl]-2-pyridinyl]methyl-**phosphonic acid** di-Et ester. II shows an IC50 of 0.11 nM in in vitro thrombin receptor antagonist assay. Phamaceutical compns. contg. I as well as method of treating diseases assocd. with **thrombosis**, atherosclerosis, restenosis, hypertension, angina pectoris, arrhythmia, heart failure, and cancer are described.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:59284 CAPLUS
DOCUMENT NUMBER: 130:246279
TITLE: Antagonists of the Platelet P2T Receptor: A Novel Approach to Antithrombotic Therapy
AUTHOR(S): Ingall, Anthony H.; Dixon, John; Bailey, Andrew; Coombs, Mandy E.; Cox, David; McInally, Judith I.; Hunt, Simon F.; Kindon, Nicholas D.; Teobald, Barry J.; Willis, Paul A.; Humphries, Robert G.; Leff, Paul; Clegg, Jane A.; Smith, James A.; Tomlinson, Wendy
CORPORATE SOURCE: Departments of Medicinal Chemistry and Pharmacology, ASTRA Charnwood, Loughborough, LE11 5RH, UK
SOURCE: Journal of Medicinal Chemistry (1999), 42(2), 213-220
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The platelet P2T receptor plays a major role in platelet aggregation, and its antagonists are predicted to have significant therapeutic potential as antithrombotic agents. We have explored analogs of ATP, which is a weak, nonselective but competitive P2T receptor antagonist. Modification of the polyphosphate side chain to prevent breakdown to the agonist ADP and substitution of the adenine moiety to enhance affinity and selectivity for the P2T receptor led to the identification of compd. AR-C67085MX, having

an IC50 of 2.5 nM against ADP-induced aggregation of human platelets. This compd. was the first very potent antagonist of the P2T receptor, with a selectivity for that subtype of the P2 receptor family of >1000-fold. Further modification of the structure produced compd. AR-C69931MX having an IC50 of 0.4 nM. In vivo, at maximally effective antithrombotic doses, there is little prolongation of bleeding time (1.4-fold), which is in marked contrast to the 5-6-fold found with GPIIb/IIIa antagonists.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d it 4

L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS
IT Purinoceptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(P2T; prepn. and structure of platelet P2T receptor antagonists as novel approach to antithrombotic therapy)
IT Anticoagulants
(prepn. and structure of platelet P2T receptor antagonists as novel approach to antithrombotic therapy)
IT Structure-activity relationship
(receptor-inhibiting; prepn. and structure of platelet P2T receptor antagonists as novel approach to antithrombotic therapy)
IT Structure-activity relationship
(**thrombosis**-inhibiting; prepn. and structure of platelet P2T receptor antagonists as novel approach to antithrombotic therapy)
IT 81336-74-5P, 5'-Adenylic acid, monoanhydride with (dichloromethylene)bis[**phosphonic acid**] 81336-78-9P 145783-24-0P
145783-27-3P 163706-06-7P 163706-10-3P 163706-13-6P 163706-15-8P
163706-18-1P 163706-19-2P 164992-25-0P 221552-87-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and structure of platelet P2T receptor antagonists as novel approach to antithrombotic therapy)
IT 16321-99-6 43157-50-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. and structure of platelet P2T receptor antagonists as novel approach to antithrombotic therapy)
IT 145783-19-3P 163706-51-2P 163706-52-3P 163706-56-7P 163706-58-9P
163706-59-0P 221552-84-7P 221552-85-8P 221552-86-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and structure of platelet P2T receptor antagonists as novel approach to antithrombotic therapy)

=> sel rn 3
E1 THROUGH E443 ASSIGNED

ACCESSION NUMBER: 1974:505092 CAPLUS
DOCUMENT NUMBER: 81:105092
TITLE: 5-Fluoro-2-methyl-1-indenylidene compounds
INVENTOR(S): Shen, Tsung-Ying; Jones, Howard
PATENT ASSIGNEE(S): Merck and Co., Inc.
SOURCE: Ger. Offen., 35 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2360550	A1	19740612	DE 1973-2360550	19731205
US 3860636	A	19750114	US 1972-312549	19721206
GB 1418950	A	19751224	GB 1973-55832	19731203
FR 2209562	B1	19781110	FR 1973-43196	19731204
JP 49086353	A2	19740819	JP 1973-135794	19731206
CH 613688	A	19791015	CH 1973-17113	19731206

PRIORITY APPLN. INFO.: US 1972-312549 19721206

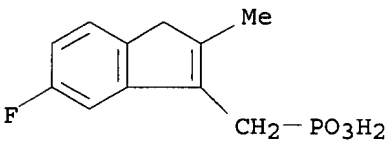
GI For diagram(s), see printed CA Issue.

AB Eight indenes [I, n = 0 or 1; R = 5-tetrazolyl, 2-(5-tetrazolyl)ethyl, CH2SO3H, or CH2PO3H2; R1 = H or Cl; Z = O, CH:CH, or C.tplbond.C], useful as analgesics, antipyretics, and **inflammation** inhibitors (no data), were prepd. by reaction of 3-R-substituted 5-fluoro-2-methylindenes with 3,4-R1(MeSOn)C6H3ZCHO.

IT **53533-20-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 53533-20-3 CAPLUS

CN Phosphonic acid, [(5-fluoro-2-methyl-1H-inden-3-yl)methyl]- (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1974:505092 CAPLUS
DOCUMENT NUMBER: 81:105092
TITLE: 5-Fluoro-2-methyl-1-indenylidene compounds
INVENTOR(S): Shen, Tsung-Ying; Jones, Howard
PATENT ASSIGNEE(S): Merck and Co., Inc.
SOURCE: Ger. Offen., 35 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2360550	A1	19740612	DE 1973-2360550	19731205
US 3860636	A	19750114	US 1972-312549	19721206
GB 1418950	A	19751224	GB 1973-55832	19731203
FR 2209562	B1	19781110	FR 1973-43196	19731204
JP 49086353	A2	19740819	JP 1973-135794	19731206
CH 613688	A	19791015	CH 1973-17113	19731206

PRIORITY APPLN. INFO.: US 1972-312549 19721206

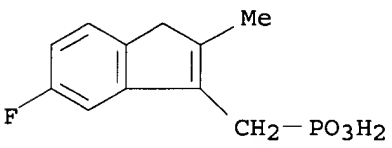
GI For diagram(s), see printed CA Issue.

AB Eight indenes [I, n = 0 or 1; R = 5-tetrazolyl, 2-(5-tetrazolyl)ethyl, CH2SO3H, or CH2PO3H2; R1 = H or Cl; Z = O, CH:CH, or C.tplbond.C], useful as analgesics, antipyretics, and **inflammation** inhibitors (no data), were prepd. by reaction of 3-R-substituted 5-fluoro-2-methylindenes with 3,4-R1(MeSOn)C6H3ZCHO.

IT **53533-20-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 53533-20-3 CAPLUS

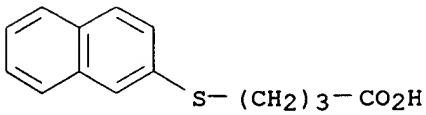
CN Phosphonic acid, [(5-fluoro-2-methyl-1H-inden-3-yl)methyl]- (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1995:967540 CAPLUS
DOCUMENT NUMBER: 124:45717
TITLE: Preparation of naphthalene derivatives as tissue thromboplastin inhibitors and **pharmaceuticals** containing them
INVENTOR(S): Takenochi, Kazuya; Horiuchi, Hideki; Hasegawa, Masakazu; Takeuchi, Takahiro; Komorya, Keiji
PATENT ASSIGNEE(S): Teijin Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

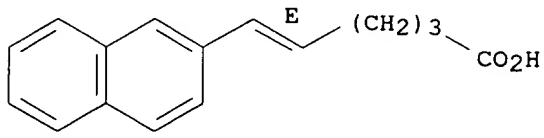
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07242538	A2	19950919	JP 1994-34684	19940304

OTHER SOURCE(S): MARPAT 124:45717
GI For diagram(s), see printed CA Issue.
AB Prophylactic or therapeutic agents, which inhibit **tissue factor** (TF), contg. naphthalene derivs. I (A = CH2CH2, CH:CH, C.tplbond.C, SCH2, OCH2; B = CH2CH2, CH:CH; R = H, C1-4 alkyl; n = 0-5) or their **pharmaceutically** acceptable salts as active ingredients are claimed. The agents useful for DIC (disseminated intravascular coagulation), thrombosis, intimal thickening diseases, or postoperative opacification of the lens in cataract patients are also claimed. 2-[7-(2-Naphthylthio)heptanamido]benzoic acid (II, prepn. given) at 3 .mu.M suppressed TF formation by human peripheral blood mononuclear leukocyte at inhibition rate 79.0%. Tablets contg. II were also formulated.
IT **5324-80-1**, 4-(2-Naphthylthio)butanoic acid **85388-18-7** **109397-47-9**, 7-(2-Naphthyl)heptanoic acid **156387-68-7**, 8-(2-Naphthyl)octanoic acid **172087-30-8**, 7-(2-Naphthylthio)heptanoic acid **172087-31-9**, 5-(2-Naphthylthio)pentanoic acid **172087-32-0**, 6-(2-Naphthylthio)hexanoic acid **172087-33-1** **172087-34-2** **172087-35-3** **172087-36-4** **172087-37-5** **172087-38-6** **172087-39-7** **172087-40-0** **172087-41-1**
RL: RCT (Reactant)
(amidation with Me anthranilate; **tissue factor inhibitors** contg. [naphthyl(oxy or thio)alkanamido]benzoic acids)
RN 5324-80-1 CAPLUS
CN Butanoic acid, 4-(2-naphthalenylthio)- (9CI) (CA INDEX NAME)

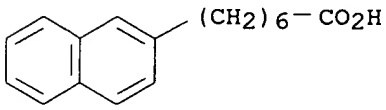


RN 85388-18-7 CAPLUS
CN 5-Hexenoic acid, 6-(2-naphthalenyl)-, (E)- (9CI) (CA INDEX NAME)

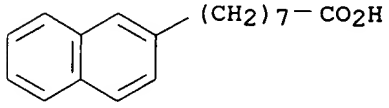
Double bond geometry as shown.



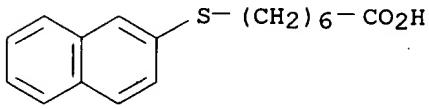
RN 109397-47-9 CAPLUS
CN 2-Naphthaleneheptanoic acid (6CI, 9CI) (CA INDEX NAME)



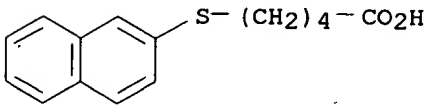
RN 156387-68-7 CAPLUS
CN 2-Naphthaleneoctanoic acid (9CI) (CA INDEX NAME)

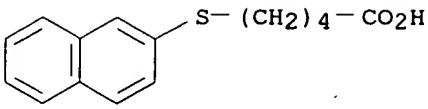


RN 172087-30-8 CAPLUS
CN Heptanoic acid, 7-(2-naphthalenylthio)- (9CI) (CA INDEX NAME)

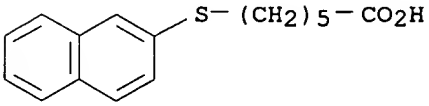


RN 172087-31-9 CAPLUS
CN Pentanoic acid, 5-(2-naphthalenylthio)- (9CI) (CA INDEX NAME)

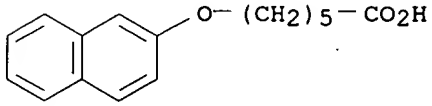




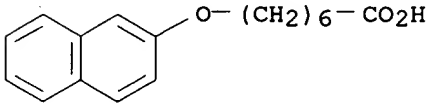
RN 172087-32-0 CAPLUS
CN Hexanoic acid, 6-(2-naphthalenylthio)- (9CI) (CA INDEX NAME)



RN 172087-33-1 CAPLUS
CN Hexanoic acid, 6-(2-naphthalenyloxy)- (9CI) (CA INDEX NAME)

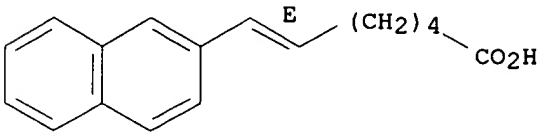


RN 172087-34-2 CAPLUS
CN Heptanoic acid, 7-(2-naphthalenyloxy)- (9CI) (CA INDEX NAME)



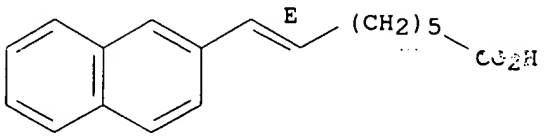
RN 172087-35-3 CAPLUS
CN 6-Heptenoic acid, 7-(2-naphthalenyl)-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



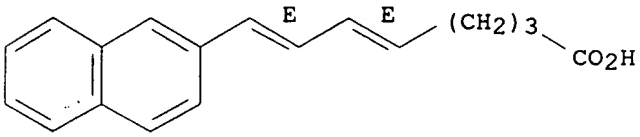
RN 172087-36-4 CAPLUS
CN 7-Octenoic acid, 8-(2-naphthalenyl)-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



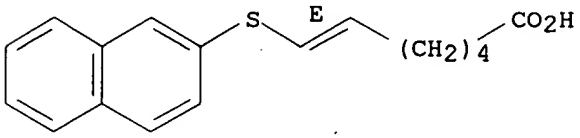
RN 172087-37-5 CAPLUS
CN 5,7-Octadienoic acid, 8-(2-naphthalenyl)-, (E,E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



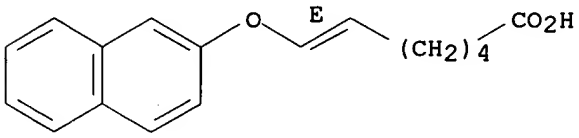
RN 172087-38-6 CAPLUS
CN 6-Heptenoic acid, 7-(2-naphthalenylthio)-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

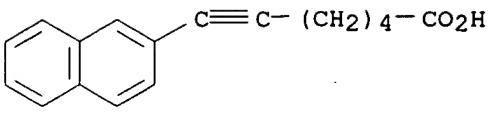


RN 172087-39-7 CAPLUS
CN 6-Heptenoic acid, 7-(2-naphthalenyloxy)-, (E)- (9CI) (CA INDEX NAME)

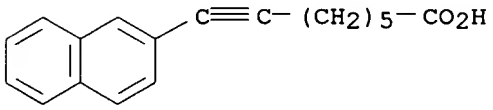
Double bond geometry as shown.



RN 172087-40-0 CAPLUS
CN 6-Heptynoic acid, 7-(2-naphthalenyl)- (9CI) (CA INDEX NAME)

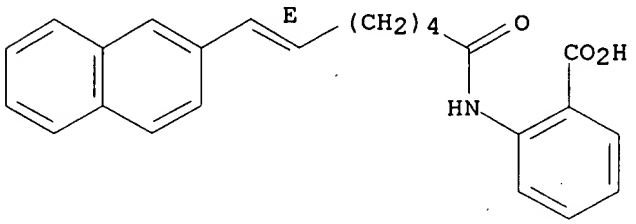


RN 172087-41-1 CAPLUS
CN 7-Octynoic acid, 8-(2-naphthalenyl)- (9CI) (CA INDEX NAME)



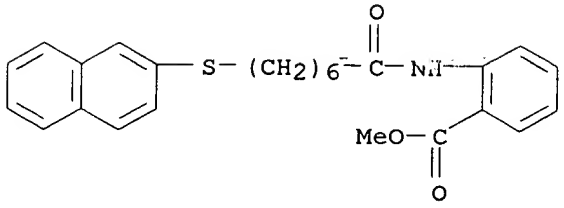
IT **169238-43-1P 172086-94-1P 172086-95-2P**
172086-96-3P 172086-97-4P 172086-98-5P
172086-99-6P 172087-00-2P 172087-01-3P
172087-02-4P 172087-03-5P 172087-04-6P
172087-05-7P 172087-06-8P 172087-07-9P
172087-08-0P 172087-09-1P 172087-10-4P
172087-11-5P 172087-12-6P 172087-13-7P
172087-14-8P 172087-15-9P 172087-16-0P
172087-17-1P 172087-18-2P 172087-19-3P
172087-20-6P 172087-21-7P 172087-22-8P
172087-23-9P 172087-24-0P 172087-25-1P
172087-26-2P 172087-27-3P 172087-29-5P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**tissue factor inhibitors** contg.
[naphthyl(oxy or thio)alkanamido]benzoic acids)
RN 169238-43-1 CAPLUS
CN Benzoic acid, 2-[[(6E)-7-(2-naphthalenyl)-1-oxo-6-heptenyl]amino]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

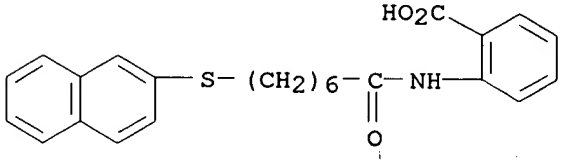


RN 172086-94-1 CAPLUS
CN Benzoic acid, 2-[[7-(2-naphthalenylthio)-1-oxoheptyl]amino]-, methyl ester

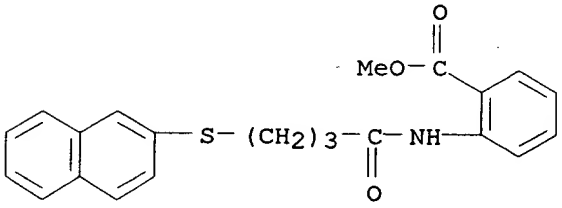
(9CI) (CA INDEX NAME)



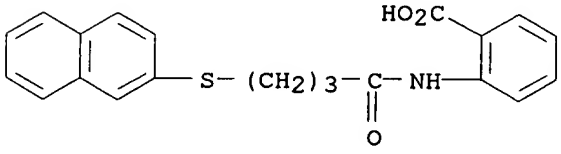
RN 172086-95-2 CAPLUS
CN Benzoic acid, 2-[[7-(2-naphthalenylthio)-1-oxoheptyl]amino]- (9CI) (CA INDEX NAME)



RN 172086-96-3 CAPLUS
CN Benzoic acid, 2-[[4-(2-naphthalenylthio)-1-oxobutyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

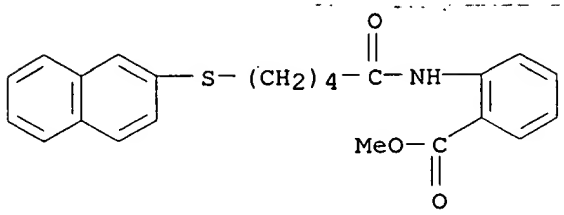


RN 172086-97-4 CAPLUS
CN Benzoic acid, 2-[[4-(2-naphthalenylthio)-1-oxobutyl]amino]- (9CI) (CA INDEX NAME)

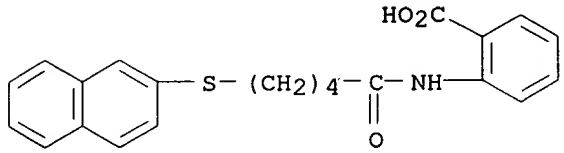


RN 172086-98-5 CAPLUS

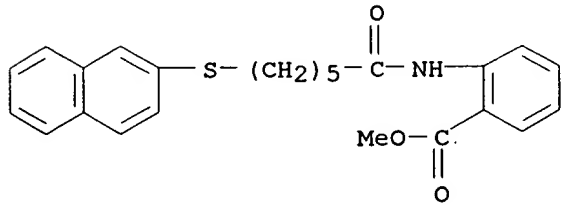
CN Benzoic acid, 2-[[5-(2-naphthalenylthio)-1-oxopentyl]amino]-, methyl ester
(9CI) (CA INDEX NAME)



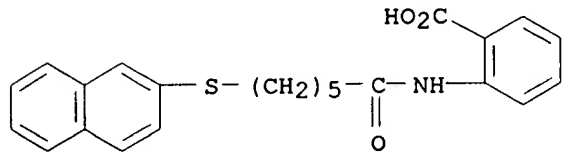
RN 172086-99-6 CAPLUS
CN Benzoic acid, 2-[[5-(2-naphthalenylthio)-1-oxopentyl]amino]- (9CI) (CA INDEX NAME)



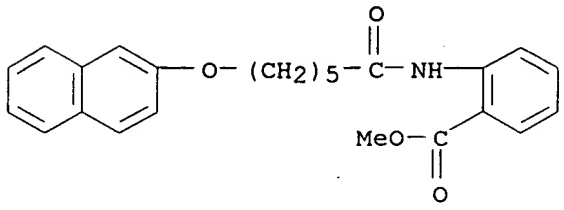
RN 172087-00-2 CAPLUS
CN Benzoic acid, 2-[[6-(2-naphthalenylthio)-1-oxohexyl]amino]-, methyl ester (9CI) (CA INDEX NAME)



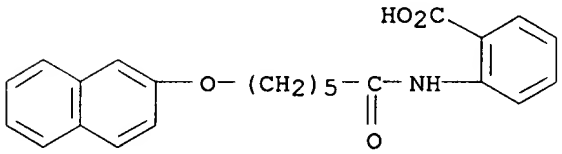
RN 172087-01-3 CAPLUS
CN Benzoic acid, 2-[[6-(2-naphthalenylthio)-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)



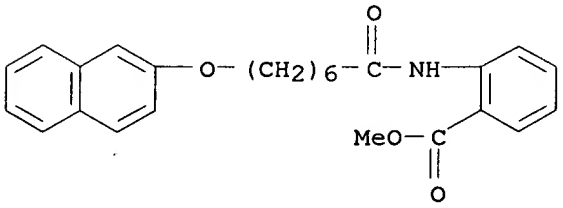
RN 172087-02-4 CAPLUS
CN Benzoic acid, 2-[[6-(2-naphthalenyloxy)-1-oxohexyl]amino]-, methyl ester (9CI) (CA INDEX NAME)



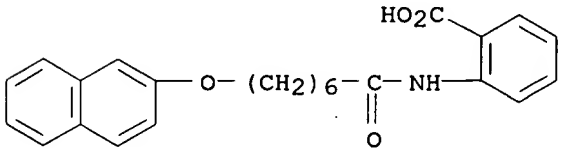
RN 172087-03-5 CAPLUS
CN Benzoic acid, 2-[[6-(2-naphthalenyloxy)-1-oxohexyl]amino]- (9CI) (CA INDEX NAME)



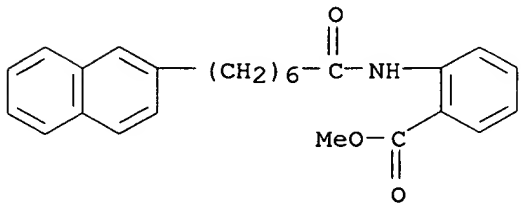
RN 172087-04-6 CAPLUS
CN Benzoic acid, 2-[[7-(2-naphthalenyloxy)-1-oxoheptyl]amino]-, methyl ester (9CI) (CA INDEX NAME)



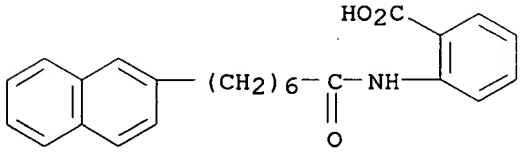
RN 172087-05-7 CAPLUS
CN Benzoic acid, 2-[[7-(2-naphthalenyloxy)-1-oxoheptyl]amino]- (9CI) (CA INDEX NAME)



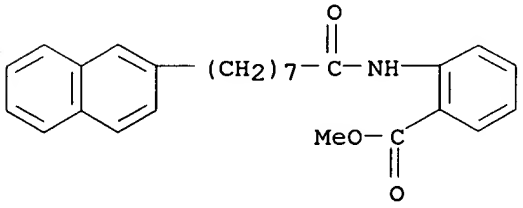
RN 172087-06-8 CAPLUS
CN Benzoic acid, 2-[[7-(2-naphthalenyl)-1-oxoheptyl]amino]-, methyl ester (9CI) (CA INDEX NAME)



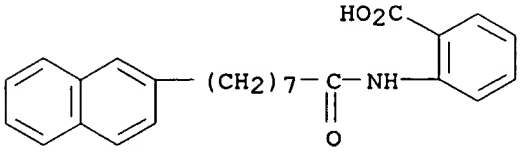
RN 172087-07-9 CAPLUS
CN Benzoic acid, 2-[[7-(2-naphthalenyl)-1-oxoheptyl]amino]- (9CI) (CA INDEX NAME)



RN 172087-08-0 CAPLUS
CN Benzoic acid, 2-[[8-(2-naphthalenyl)-1-oxooctyl]amino]-, methyl ester (9CI) (CA INDEX NAME)



RN 172087-09-1 CAPLUS
CN Benzoic acid, 2-[[8-(2-naphthalenyl)-1-oxooctyl]amino]- (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1996:541311 CAPLUS
DOCUMENT NUMBER: 125:212249
TITLE: Anticoagulant effects and **tissue factor** pathway inhibitor after intrapulmonary low-molecular-weight heparin
AUTHOR(S): Harenberg, J.; Malsch, R.; Angelescu, M.; Lange, C.; Michaelis, H-C.; Wolf, H.; Heene, D. L.
CORPORATE SOURCE: 1st Dep. Med., Univ. Heidelberg, Mannheim, 68167, Germany
SOURCE: Blood Coagulation Fibrinolysis (1996), 7(4), 477-483
CODEN: BLFIE7; ISSN: 0957-5235
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The present study was designed to investigate the anticoagulant action of inhaled low-mol.-wt. (LMW) heparin on the release of **tissue factor** pathway inhibitor (TFPI) and on antifactor Xa activity, Heptest, activated partial thromboplastin time (APTT) and thrombin clotting time (TCT) in healthy volunteers. 3000 IU (group 1), 9000 IU (group 2), 27000 IU (group 3) or 54000 IU (group 4) LMW-heparin were given to 20 healthy volunteers each at 4 wk intervals by inhalation. For safety reasons a dose escalating design was chosen. APTT and TCT did not change after inhalation of any dose of LMW-heparin as well as all parameters in group 1. In group 2, Heptest coagulation times were prolonged from 18.7.+-.2.0 s before to 26.1.+-.5.2 s 6 h and 20.5.+-.1.9 s 24 h after inhalation and the other parameters remained unaffected. In group 3, S2222 method and the protamine assay increased from 0.01 to about 0.1 IU/mL 6 h after inhalation and returned to normal values after 24 h. TFPI antigen increased from 74.1.+-.13.9 to 80.5.+-.14.2 ng/mL 3 h after inhalation. TFPI activity remained unchanged. Heptest coagulation values were prolonged to 42.+-.7.6 s after 6 h and returned to normal within 72 h after inhalation. In group 4, the following changes were obsd.: antifactor Xa activity increased to 0.343.+-.0.196 U/mL after 6 h and normalized after 72 h. The protamine assay detected 0.2.+-.0.18 U LMWH/mL after 6 h, TFPI antigen increased to 103.+-.17.9 ng/mL and TFPI activity to 1.14.+-.0.23 U 3 h after inhalation. All tests were normal after 24 h. Heptest coagulation values increased to 77.5.+-.11.8 s 6 h after inhalation and normalized after 144 h. The area under the activity time curve of the S2222 method and of the Heptest assay increased with increasing doses (r = 0.677 and r = 0.571), resp. The calcd. elimination half-life of the aXa-effect was 7.5 h using S2222-, Heptest- and protamine assays. The data demonstrate a resorption of LMW-heparin by intrapulmonary route in man. The dose to produce antifactor Xa levels, prolongations of Heptest coagulation values and in releasing TFPI is about ten-fold higher than after s.c. administration.
IT Anticoagulants and Antithrombotics
(antithrombotic and antiasthmatic effects, release of **tissue factor** pathway inhibitor and antifactor Xa activity after

intrapulmonary low-mol.-wt. heparin)

IT Blood-coagulation factors
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(LACI (lipoprotein-assocd. coagulation inhibitor), antithrombotic and antiasthmatic effects, release of **tissue factor** pathway inhibitor and antifactor Xa activity after intrapulmonary low-mol.-wt. heparin)

IT Bronchodilators
(antiasthmatics, antithrombotic and antiasthmatic effects, release of **tissue factor** pathway inhibitor and antifactor Xa activity after intrapulmonary low-mol.-wt. heparin)

IT **Pharmaceutical** dosage forms
(inhalants, antithrombotic and antiasthmatic effects, release of **tissue factor** pathway inhibitor and antifactor Xa activity after intrapulmonary low-mol.-wt. heparin)

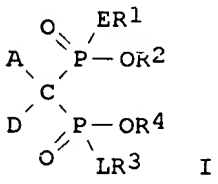
IT 9002-05-5, Factor Xa
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(anti-; antithrombotic and antiasthmatic effects, release of **tissue factor** pathway inhibitor and antifactor Xa activity after intrapulmonary low-mol.-wt. heparin)

IT 9005-49-6, Heparin, biological studies
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antithrombotic and antiasthmatic effects, release of **tissue factor** pathway inhibitor and antifactor Xa activity after intrapulmonary low-mol.-wt. heparin)

ACCESSION NUMBER: 1999:162340 CAPLUS
DOCUMENT NUMBER: 130:209820
TITLE: Substituted 1,1-bisphosphonates for use as enzyme inhibitors and drugs
INVENTOR(S): Brands, Michael; Lohrmann, Emanuel; Schmidt, Delf; Kirsten, Rolf; Riebel, Hans-Joachim; Eckenberg, Peter; Hansen, Jutta; Raddatz, Siegfried; Schulze, Thomas; Trappe, Joerg
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Ger. Offen., 68 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19738005	A1	19990304	DE 1997-19738005	19970830

OTHER SOURCE(S): MARPAT 130:209820
GI

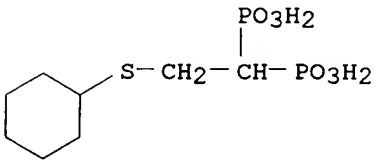


I

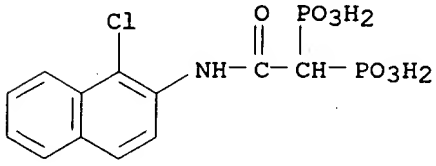
AB Substituted 1,1-bisphosphonates [I; R1-R4 = H, C1-5 alkyl; A = (CO)a(CH2)bNR5R6, CH2ScR7, C(S)NHR8; D = H; or AD = :O, :CHR11, :NR12; R5 = H, C1-6 alkyl; R6 = H, C1-5 alkyl, cycloalkyl, (substituted) aryl, heteroaryl, etc.; R7, R8 = C3-7 cycloalkyl, (substituted) aryl, heteroaryl, etc.; R11, R12 = 2-fluorenyl, 4-benzyloxyphenyl, 9-phenanthryl, 2-thiazolyl, etc.; E, L = O, S; a, b, c = 0, 1] and their salts, enantiomers, and diastereomers are prepd. which (a) inhibit protein phosphatase 1 and are useful for **treatment** of **cardiovascular** disorders, and/or (b) inhibit HIV integrase and are useful for prevention and **treatment** of retroviral infections (no data). I are prepd. (a) by addn. reaction of tetra-Et vinylidene-1,1-bisphosphonate with appropriate thiols or amines, (b) by condensation of tetra-Et methylenebisphosphonate with appropriate bromomethyl compds., isocyanates, or aldehydes, or (c) by reaction of phosphite esters with appropriate amines and orthoformates or with R12N:CCl2. Thus, cyclohexanethiol reacted with di-Et [1-(diethoxyphosphino)vinyl]phosphonate to form di-Et [2-(cyclohexylthio)-1-(diethoxyphosphino)ethyl]phosphonate, which was converted to the free acid with BrSiMe3.

IT 221002-47-7P 221002-50-2P 221002-55-7P
221002-58-0P 221002-60-4P 221002-62-6P
221002-65-9P 221002-68-2P 221002-71-7P
221002-77-3P 221002-80-8P 221002-83-1P
221002-87-5P 221002-90-0P 221002-93-3P
221002-96-6P 221002-98-8P 221002-99-9P
221003-01-6P 221003-02-7P 221003-03-8P
221003-05-0P 221003-06-1P 221003-08-3P
221003-09-4P 221003-10-7P 221003-11-8P
221003-13-0P 221003-14-1P 221003-16-3P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(substituted bisphosphonates for use as enzyme inhibitors and drugs)

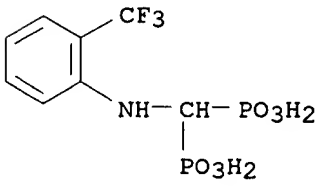
RN 221002-47-7 CAPLUS
CN Phosphonic acid, [2-(cyclohexylthio)ethylidene]bis- (9CI) (CA INDEX NAME)



RN 221002-50-2 CAPLUS
CN Phosphonic acid, [2-[(1-chloro-2-naphthalenyl)amino]-2-oxoethylidene]bis- (9CI) (CA INDEX NAME)

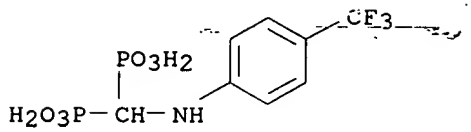


RN 221002-55-7 CAPLUS
CN Phosphonic acid, [[[2-(trifluoromethyl)phenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)

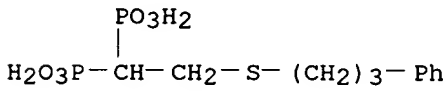


RN 221002-58-0 CAPLUS

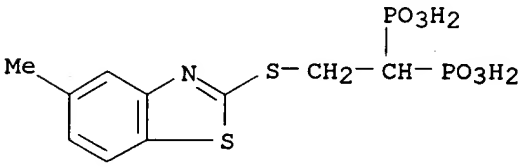
CN Phosphonic acid, [[[4-(trifluoromethyl)phenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)



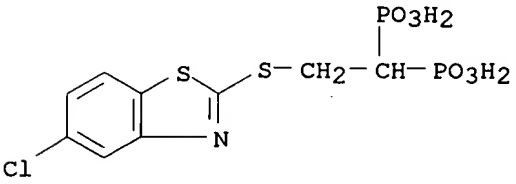
RN 221002-60-4 CAPLUS
CN Phosphonic acid, [2-[(3-phenylpropyl)thio]ethylidene]bis- (9CI) (CA INDEX NAME)



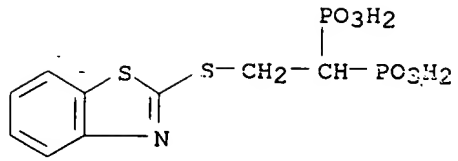
RN 221002-62-6 CAPLUS
CN Phosphonic acid, [2-[(5-methyl-2-benzothiazolyl)thio]ethylidene]bis- (9CI) (CA INDEX NAME)



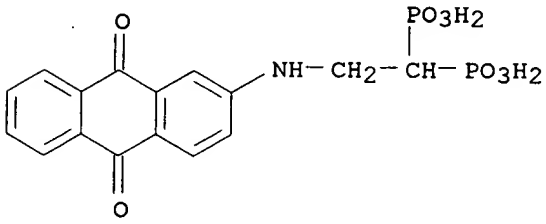
RN 221002-65-9 CAPLUS
CN Phosphonic acid, [2-[(5-chloro-2-benzothiazolyl)thio]ethylidene]bis- (9CI) (CA INDEX NAME)



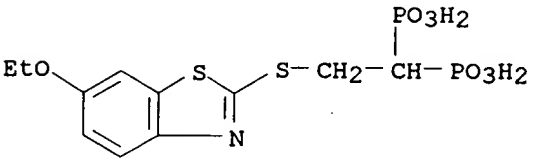
RN 221002-68-2 CAPLUS
CN Phosphonic acid, [2-(2-benzothiazolylthio)ethylidene]bis- (9CI) (CA INDEX NAME)



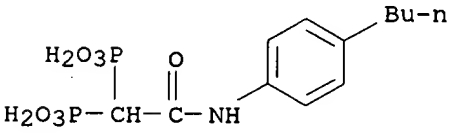
RN 221002-71-7 CAPLUS
CN Phosphonic acid, [2-[(9,10-dihydro-9,10-dioxo-2-anthracenyl)amino]ethylidene]bis- (9CI) (CA INDEX NAME)



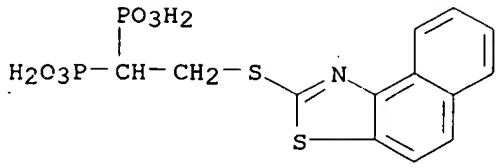
RN 221002-77-3 CAPLUS
CN Phosphonic acid, [2-[(6-ethoxy-2-benzothiazolyl)thio]ethylidene]bis- (9CI)
(CA INDEX NAME)



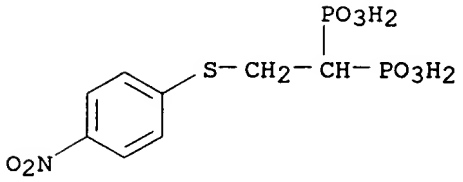
RN 221002-80-8 CAPLUS
CN Phosphonic acid, [2-[(4-butylphenyl)amino]-2-oxoethylidene]bis- (9CI) (CA
INDEX NAME)



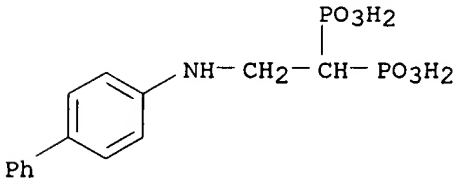
RN 221002-83-1 CAPLUS
CN Phosphonic acid, [2-(naphtho[1,2-d]thiazol-2-ylthio)ethylidene]bis- (9CI)
(CA INDEX NAME)



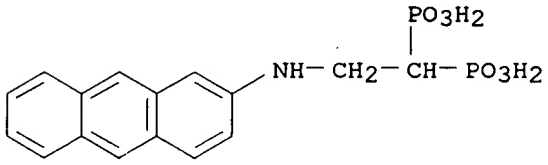
RN 221002-87-5 CAPLUS
CN Phosphonic acid, [2-[(4-nitrophenyl)thio]ethylidene]bis- (9CI) (CA INDEX NAME)



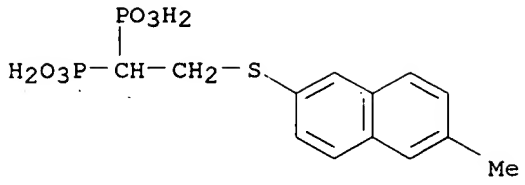
RN 221002-90-0 CAPLUS
CN Phosphonic acid, [2-([1,1'-biphenyl]-4-ylamino)ethylidene]bis- (9CI) (CA INDEX NAME)



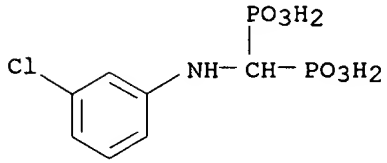
RN 221002-93-3 CAPLUS
CN Phosphonic acid, [2-(2-anthracenylamino)ethylidene]bis- (9CI) (CA INDEX NAME)



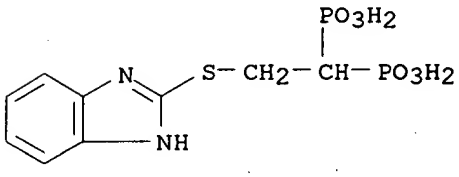
RN 221002-96-6 CAPLUS
CN Phosphonic acid, [2-[(6-methyl-2-naphthalenyl)thio]ethylidene]bis- (9CI) (CA INDEX NAME)



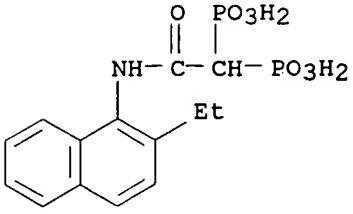
RN 221002-98-8 CAPLUS
CN Phosphonic acid, [[(3-chlorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



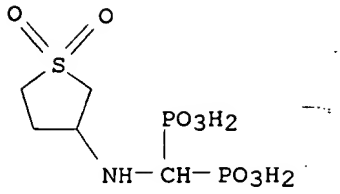
RN 221002-99-9 CAPLUS
CN Phosphonic acid, [2-(1H-benzimidazol-2-ylthio)ethylidene]bis- (9CI) (CA INDEX NAME)



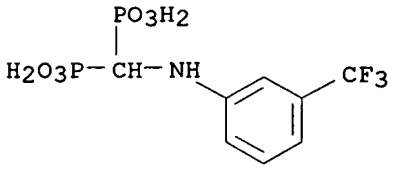
RN 221003-01-6 CAPLUS
CN Phosphonic acid, [2-[(2-ethyl-1-naphthalenyl)amino]-2-oxoethylidene]bis- (9CI) (CA INDEX NAME)



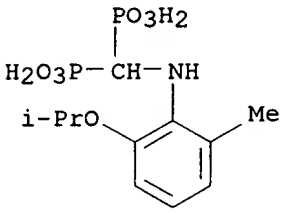
RN 221003-02-7 CAPLUS
CN Phosphonic acid, [[(tetrahydro-1,1-dioxido-3-thienyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



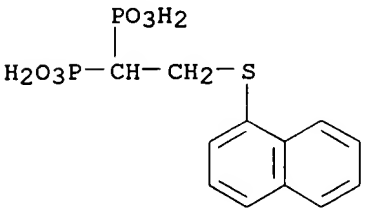
RN 221003-03-8 CAPLUS
CN Phosphonic acid, [[[3-(trifluoromethyl)phenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 221003-05-0 CAPLUS
CN Phosphonic acid, [[[2-methyl-6-(1-methylethoxy)phenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)

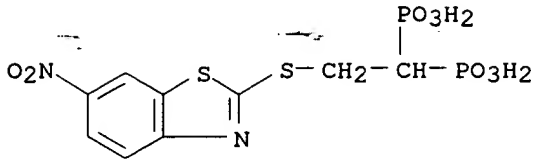


RN 221003-06-1 CAPLUS
CN Phosphonic acid, [2-(1-naphthalenylthio)ethylidene]bis- (9CI) (CA INDEX NAME)

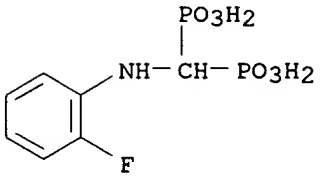


RN 221003-08-3 CAPLUS

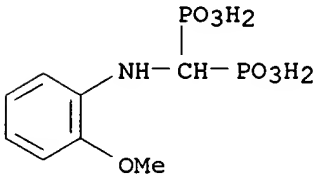
CN Phosphonic acid, [2-[(6-nitro-2-benzothiazolyl)thio]ethylidene]bis- (9CI) (CA INDEX NAME)



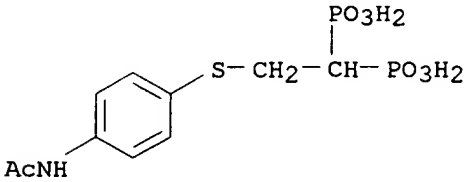
RN 221003-09-4 CAPLUS
CN Phosphonic acid, [[(2-fluorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



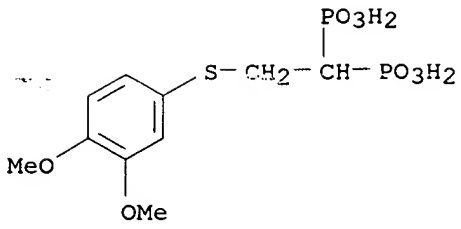
RN 221003-10-7 CAPLUS
CN Phosphonic acid, [[(2-methoxyphenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 221003-11-8 CAPLUS
CN Phosphonic acid, [2-[[4-(acetylamino)phenyl]thio]ethylidene]bis- (9CI) (CA INDEX NAME)



RN 221003-13-0 CAPLUS
CN Phosphonic acid, [2-[(3,4-dimethoxyphenyl)thio]ethylidene]bis- (9CI) (CA INDEX NAME)



RN 221003-14-1 CAPLUS
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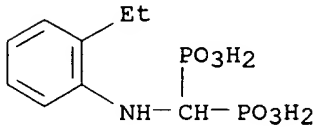
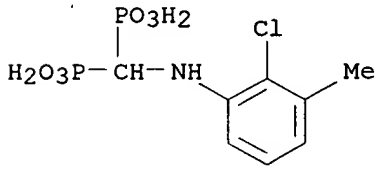


RN 221003-16-3 CAPLUS
CN Phosphonic acid, [[(2-chloro-3-methylphenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1997:389221 CAPLUS
DOCUMENT NUMBER: 127:5356
TITLE: Preparation of peptides as inhibitors of proliferation of smooth muscle cells
INVENTOR(S): Nakahara, Yo; Hara, Saburo; Kamikubo, Yuichi; Takemoto, Sumiyo; Miyamoto, Seiji
PATENT ASSIGNEE(S): Juridical Foundation the Chemo-Sero-Therapeutic Research Institute, Japan; Nakahara, Yo; Hara, Saburo; Kamikubo, Yuichi; Takemoto, Sumiyo; Miyamoto, Seiji
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9715598	A1	19970501	WO 1996-JP3080	19961023
W: AU, CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2232240	AA	19970501	CA 1996-2232240	19961023
AU 9673357	A1	19970515	AU 1996-73357	19961023
AU 719366	B2	20000504		
EP 867450	A1	19980930	EP 1996-935411	19961023
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: JP 1995-300792 19951024
WO 1996-JP3080 19961023

OTHER SOURCE(S): MARPAT 127:5356

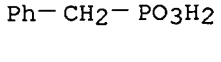
AB Disclosed is a peptide contg. a peptide (A) consisting of an amino acid sequence rich in basic amino acids and another peptide (B) consisting of an amino acid sequence contg. at least two consecutive hydrophobic amino acid residues wherein the peptide (B) is bonded directly or via an amino acid sequence consisting of several amino acids to the C-terminus of the peptide (A). This novel peptide has an excellent inhibitory effect on the proliferation of smooth muscle fibers and **pharmaceutical** prepns. contg. the peptide are efficacious in the prevention or treatment of arteriosclerosis accompanying the proliferation of smooth muscle fibers, restenosis after angioplasty, luminal stenosis after vascular transplantation, and leiomyosarcoma. Thus, 20 peptides related to the C-terminus region of **tissue factor** pathway inhibitor (TFPI), e.g. H-KTKRKRKKQRVKIAYEEIFVKNM-OH (I), were prepd. by the solid phase method. I in vitro dose-dependently inhibited the proliferation of smooth muscle cell of human aorta blood vessels.

IT **194554-71-7P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(C-terminus peptide analogs; prepn. of **tissue factor** pathway inhibitor peptide analogs as inhibitors of proliferation of

smooth muscle cells for disease therapy)
RN 194554-71-7 CAPLUS
CN Proteinase inhibitor, TFPI (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

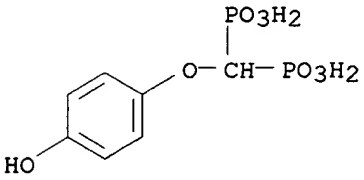
ACCESSION NUMBER: 1994:219245 CAPLUS
DOCUMENT NUMBER: 120:219245
TITLE: Polyanilines Doped with Phosphonic Acids: Their Preparation and Characterization
AUTHOR(S): Chan, H. S. O.; Ng, S. C.; Ho, P. K. H.
CORPORATE SOURCE: Department of Chemistry, National University of Singapore, Singapore, 0511, Singapore
SOURCE: Macromolecules (1994), 27(8), 2159-64
CODEN: MAMOBX; ISSN: 0024-9297
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Highly conducting polyaniline (I) with thermal stabilities superior to that of I doped with HCl have been prepd. by postsynthesis treatment of the I-base with 3 different phosphonic acids, RPA, where R = Bu, decyl, and benzyl (Bn). XPS results indicate the occurrence of free dopant mols. in the sample matrix, partial segregation of dopant species to the polymer surface, and participation of H3O+ as counter charges to some of the dopant anions in these samples. IR data suggest minimal perturbation of the I vibrational states when Cl- is replaced by RPO2(OH)-. Isothermal studies show the vastly superior thermal stabilities of the I-RPA over those of I-HCl. Thermogravimetric anal. has demonstrated a condensation reaction above 150.degree. among the POH and NH functions to give a crosslinked structure with loss of elec. cond. The stepwise doping process of I-base by different amts. of BnPA was followed closely by UV-visible spectroscopy.
IT **6881-57-8P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(dopant, prepn. of, for polyaniline)
RN 6881-57-8 CAPLUS
CN Phosphonic acid, (phenylmethyl)- (9CI) (CA INDEX NAME)



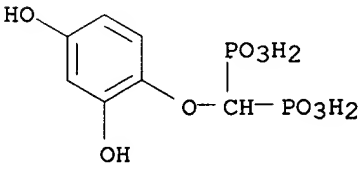
ACCESSION NUMBER: 1993:428231 CAPLUS
DOCUMENT NUMBER: 119:28231
TITLE: 4-Hydroxyphenoxymethylene bisphosphonic acid derivatives: potent, non-hydrolyzable inhibitors of myo-inositol monophosphatase
AUTHOR(S): Fletcher, Stephen R.; Baker, Raymond; Ladduwahetty, Tamara; Sharpe, Andrew; Teall, Martin; Atack, John R.
CORPORATE SOURCE: Neurosci. Res. Cent., Merck, Sharp and Dohme Res. Lab., Terlings Park/Harlow, UK
SOURCE: Bioorg. Med. Chem. Lett. (1993), 3(2), 141-6
CODEN: BMCLE8; ISSN: 0960-894X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 119:28231
AB From a series of 4-hydroxyphenoxymethylene bisphosphonic acid derivs., 1-(4-hydroxyphenoxy-)-1-(methyl)methylenebisphosphonic acid was identified as a structurally simple, competitive inhibitor of myo-inositol monophosphatase (IC50, 0.33 .mu.M). Replacement of the 1-Me group by a 3-(3,4-dichlorobenzamido)benzyl substituent affords the most potent inhibitor of the series (IC50, 0.08 .mu.M).

IT **104407-97-8P 147875-55-6P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. and inhibition by, of myo-inositol monophosphatase)

RN 104407-97-8 CAPLUS
CN Phosphonic acid, [(4-hydroxyphenoxy)methylene]bis- (9CI) (CA INDEX NAME)



RN 147875-55-6 CAPLUS
CN Phosphonic acid, [(2,4-dihydroxyphenoxy)methylene]bis- (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1996:705780 CAPLUS
DOCUMENT NUMBER: 125:320562
TITLE: Preparation of herbicidal bisphosphonic acids
INVENTOR(S): Fisher, Karl J.; Woolard, Frank X.; Leadbetter, Michael R.; Gerdes, John M.
PATENT ASSIGNEE(S): Zeneca Limited, UK
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

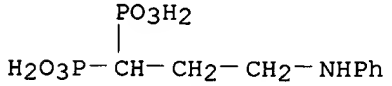
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9631124	A1	19961010	WO 1996-US4869	19960408
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
US 5728650	A	19980317	US 1995-418970	19950407
AU 9654475	A1	19961023	AU 1996-54475	19960408
EP 820230	A1	19980128	EP 1996-911660	19960408
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
BR 9604975	A	19980609	BR 1996-4975	19960408
JP 11503429	T2	19990326	JP 1996-530540	19960408
NO 9704619	A	19971006	NO 1997-4619	19971006
PRIORITY APPLN. INFO.:			US 1995-418970	19950407
			US 1993-133722	19931007
			WO 1996-US4869	19960408

OTHER SOURCE(S): MARPAT 125:320562

AB The bisphosphonic acids R6R7NCR4R5(CR2R3)nCR1(PO3H2)2 [n = 1-6; R1 = H, OH, alkoxy, halo, etc.; R2-5 = H = (un)substituted hydrocarbyl, etc.; R6,R7 = H, (un)substituted hydrocarbyl, (un)substituted pyridyl, (un)substituted amine, etc.; R6NR7 = piperazine, aziridine, morpholine, etc.] or their salts or hydrolyzable esters are prepd. as herbicides. The herbicidal compns. exhibit efficacy when applied to plants post-emergence, but not pre-emergence.

IT **183446-62-0P 183446-77-7P 183446-85-7P 183447-31-6P 183447-32-7P 183447-35-0P 183447-36-1P**
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(prepn. as herbicide)

RN 183446-62-0 CAPLUS
CN Phosphonic acid, [3-(phenylamino)propylidene]bis- (9CI) (CA INDEX NAME)



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             9 L15
       2614414 PREP/RL
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=> s l14/prep

            49 L14
       2614414 PREP/RL
L18         26 L14/PREP
                (L14 (L) PREP/RL)

=> d ibib abs hitstr 1-26


L18  ANSWER 1 OF 26  CAPLUS  COPYRIGHT 2000 ACS
ACCESSION NUMBER:         1999:162340  CAPLUS
DOCUMENT NUMBER:          130:209820
TITLE:                    Substituted 1,1-bisphosphonates for use as enzyme
                          inhibitors and drugs
INVENTOR(S):              Brands, Michael; Lohrmann, Emanuel; Schmidt, Delf;
                          Kirsten, Rolf; Riebel, Hans-Joachim; Eckenberg,
Peter;
                          Hansen, Jutta; Raddatz, Siegfried; Schulze, Thomas;
                          Trappe, Joerg
PATENT ASSIGNEE(S):       Bayer A.-G., Germany
SOURCE:                   Ger. Offen., 68 pp.
                          CODEN: GWXXBX
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.   DATE
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     DE 19738005        A1   19990304       DE 1997-19738005  19970830
OTHER SOURCE(S):          MARPAT 130:209820
GI
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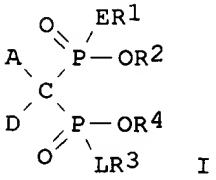


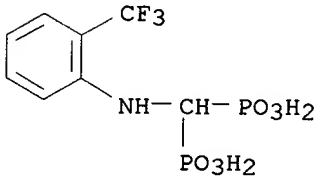
I

AB Substituted 1,1-bisphosphonates [I; R1-R4 = H, C1-5 alkyl; A =

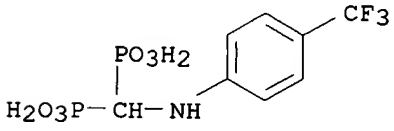
(CO)a(CH2)bNR5R6, CH2ScR7, C(S)NHR8; D = H; or AD = :O, :CHR11, :NR12; R5 = H, C1-6 alkyl; R6 = H, C1-5 alkyl, cycloalkyl, (substituted) aryl, heteroaryl, etc.; R7, R8 = C3-7 cycloalkyl, (substituted) aryl, heteroaryl, etc.; R11, R12 = 2-fluorenyl, 4-benzyloxyphenyl, 9-phenanthryl, 2-thiazolyl, etc.; E, L = O, S; a, b, c = 0, 1] and their salts, enantiomers, and diastereomers are prepd. which (a) inhibit protein phosphatase 1 and are useful for treatment of cardiovascular disorders, and/or (b) inhibit HIV integrase and are useful for prevention and treatment of retroviral infections (no data). I are prepd. (a) by addn. reaction of tetra-Et vinylidene-1,1-bisphosphonate with appropriate thiols or amines, (b) by condensation of tetra-Et methylenebisphosphonate with appropriate bromomethyl compds., isocyanates, or aldehydes, or (c) by reaction of phosphite esters with appropriate amines and orthoformates or with R12N:CCl2. Thus, cyclohexanethiol reacted with di-Et [1-(diethoxyphosphino)vinyl]phosphonate to form di-Et [2-(cyclohexylthio)-1-(diethoxyphosphino)ethyl]phosphonate, which was converted to the free acid with BrSiMe3.

IT **221002-55-7P 221002-58-0P 221002-90-0P 221002-98-8P 221003-03-8P 221003-05-0P 221003-09-4P 221003-10-7P 221003-14-1P 221003-16-3P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(substituted bisphosphonates for use as enzyme inhibitors and drugs)

RN 221002-55-7 CAPLUS
CN Phosphonic acid, [[[2-(trifluoromethyl)phenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)

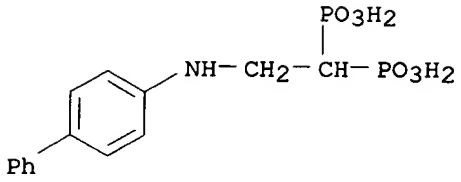


RN 221002-58-0 CAPLUS
CN Phosphonic acid, [[[4-(trifluoromethyl)phenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)

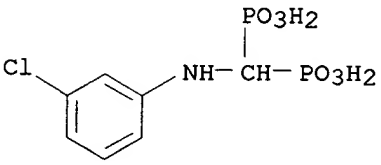


RN 221002-90-0 CAPLUS
CN Phosphonic acid, [2-([1,1'-biphenyl]-4-ylamino)ethylidene]bis- (9CI) (CA

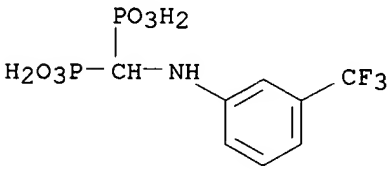
INDEX NAME)



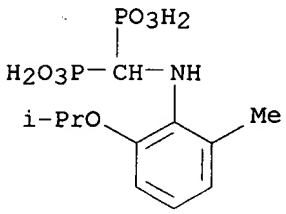
RN 221002-98-8 CAPLUS
CN Phosphonic acid, [[(3-chlorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 221003-03-8 CAPLUS
CN Phosphonic acid, [[[3-(trifluoromethyl)phenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)

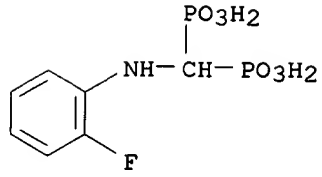


RN 221003-05-0 CAPLUS
CN Phosphonic acid, [[[2-methyl-6-(1-methylethoxy)phenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)

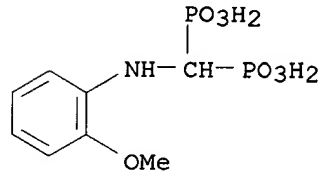


RN 221003-09-4 CAPLUS
CN Phosphonic acid, [[(2-fluorophenyl)amino]methylene]bis- (9CI) (CA INDEX

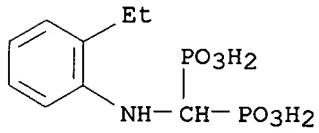
NAME)



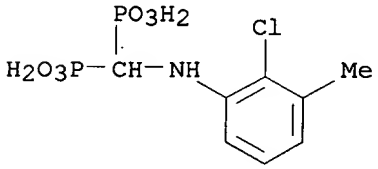
RN 221003-10-7 CAPLUS
CN Phosphonic acid, [[(2-methoxyphenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 221003-14-1 CAPLUS
CN Phosphonic acid, [[(2-ethylphenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 221003-16-3 CAPLUS
CN Phosphonic acid, [[(2-chloro-3-methylphenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



L18 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:186482 CAPLUS
DOCUMENT NUMBER: 128:240717
TITLE: Preparation of herbicidal azabisphosphonic acids
INVENTOR(S): Fisher, Karl J.; Woolard, Frank X.; Leadbetter, Michael R.; Gerdes, John M.

PATENT ASSIGNEE(S): Zeneca Ltd., UK
SOURCE: U.S., 43 pp. Cont.-in-part of U.S. Ser. No. 133,722, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5728650	A	19980317	US 1995-418970	19950407
ZA 9407814	A	19950814	ZA 1994-7814	19941006
CA 2173607	AA	19950420	CA 1994-2173607	19941007
CN 1134657	A	19961030	CN 1994-194096	19941007
HU 74893	A2	19970228	HU 1996-839	19941007
WO 9631124	A1	19961010	WO 1996-US4869	19960408
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
CA 2217655	AA	19961010	CA 1996-2217655	19960408
AU 9654475	A1	19961023	AU 1996-54475	19960408
EP 820230	A1	19980128	EP 1996-911660	19960408
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
CN 1181690	A	19980513	CN 1996-193132	19960408
BR 9604975	A	19980609	BR 1996-4975	19960408
JP 11503429	T2	19990326	JP 1996-530540	19960408
NO 9704619	A	19971006	NO 1997-4619	19971006
PRIORITY APPLN. INFO.:			US 1993-133722	19931007
			US 1995-418970	19950407
			WO 1996-US4869	19960408

OTHER SOURCE(S): MARPAT 128:240717

AB The azabisphosphonic acids R6R7NCR4R5(CR2R3)nCR1(PO3H2)2 [n = 0, 1-6; R1 = H, OH, alkyl, alkoxy, halo, etc.; R2-5 H, (un)substituted hydrocarbyl, etc.; R6, R7 = R2, (un)substituted pyridyl or (un)substituted amino; R6R7N, R4R6CN or R2R6CN = (un)substituted N-contg. heterocyclyl; R2R4C and R4R5C = (un)substituted carbocyclyl] and their salts or hydrolyzable esters are prepd. as postemergence herbicides.

IT **166747-10-0P 172957-71-0P 183446-62-0P 183446-77-7P 183446-85-7P 183447-31-6P 183447-32-7P 183447-35-0P 183447-36-1P 204984-04-3P 204984-10-1P 204984-15-6P 204984-16-7P 204984-18-9P 204984-21-4P 204984-22-5P 204984-23-6P 204984-24-7P 204984-25-8P 204984-26-9P 204984-27-0P 204984-41-8P 204984-42-9P 204984-43-0P 204984-44-1P 204984-45-2P 204984-59-8P 204984-91-8P 204985-19-3P 204985-68-2P 204985-78-4P 204986-39-0P 204986-41-4P**
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological

study); **PREP (Preparation)**; USES (Uses)
(prepn. as herbicide)
RN 166747-10-0 CAPLUS
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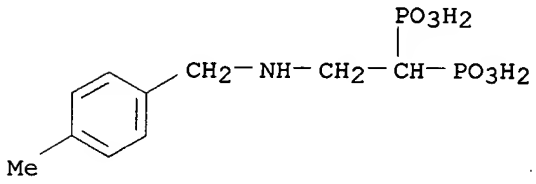

RN 172957-71-0 CAPLUS
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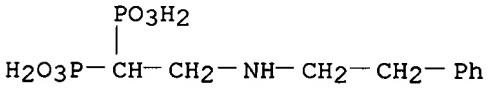
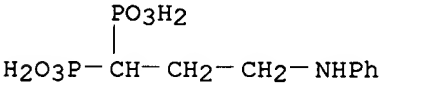
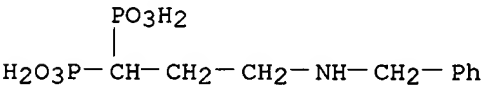


RN 183446-62-0 CAPLUS
CN Phosphonic acid, [3-(phenylamino)propylidene]bis- (9CI) (CA INDEX NAME)



RN 183446-77-7 CAPLUS
CN Phosphonic acid, [3-[(phenylmethyl)amino]propylidene]bis- (9CI) (CA INDEX NAME)



RN 183446-85-7 CAPLUS
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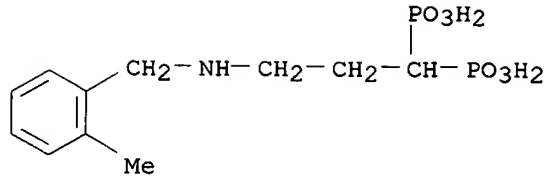

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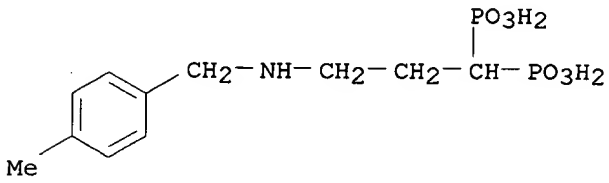
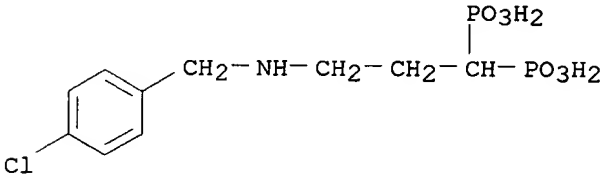
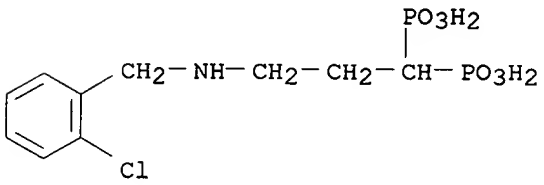
CN Phosphonic acid, [3-[[(4-methylphenyl)methyl]amino]propylidene]bis- (9CI) (CA INDEX NAME)



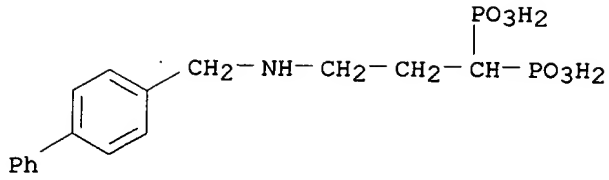
RN 183447-32-7 CAPLUS
CN Phosphonic acid, [3-[[(4-chlorophenyl)methyl]amino]propylidene]bis- (9CI) (CA INDEX NAME)



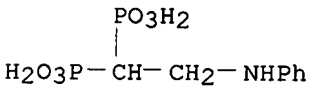
RN 183447-35-0 CAPLUS
CN Phosphonic acid, [3-[[(2-chlorophenyl)methyl]amino]propylidene]bis- (9CI) (CA INDEX NAME)



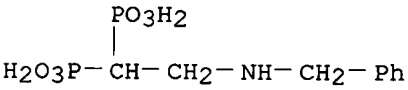
RN 183447-36-1 CAPLUS
CN Phosphonic acid, [3-[([1,1'-biphenyl]-4-ylmethyl)amino]propylidene]bis- (9CI) (CA INDEX NAME)



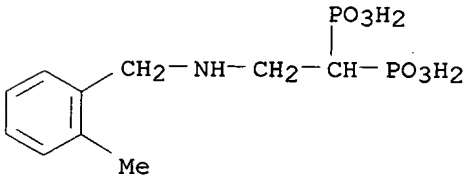
RN 204984-04-3 CAPLUS
CN Phosphonic acid, [2-(phenylamino)ethylidene]bis- (9CI) (CA INDEX NAME)



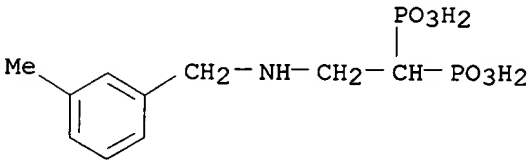
RN 204984-10-1 CAPLUS
CN Phosphonic acid, [2-[(phenylmethyl)amino]ethylidene]bis- (9CI) (CA INDEX NAME)



RN 204984-15-6 CAPLUS
CN Phosphonic acid, [2-[[(2-methylphenyl)methyl]amino]ethylidene]bis- (9CI) (CA INDEX NAME)



RN 204984-16-7 CAPLUS
CN Phosphonic acid, [2-[[(3-methylphenyl)methyl]amino]ethylidene]bis- (9CI) (CA INDEX NAME)



RN 204984-18-9 CAPLUS

CN Phosphonic acid,
[2-[[2,6-dichloro-4-(trifluoromethyl)phenyl]amino]ethylid
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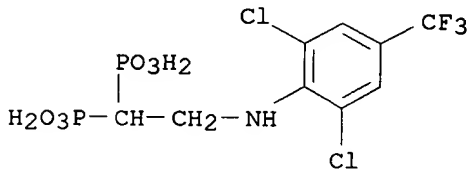
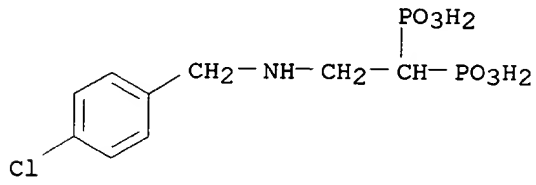
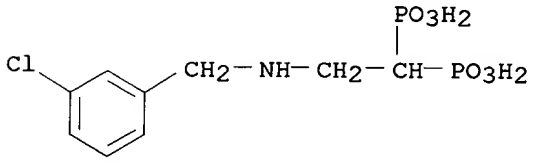


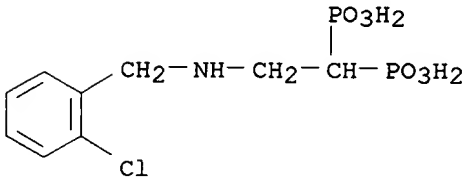
RN 204984-21-4 CAPLUS
CN Phosphonic acid, [2-[[(4-chlorophenyl)methyl]amino]ethylidene]bis- (9CI)
(CA INDEX NAME)



RN 204984-22-5 CAPLUS
CN Phosphonic acid, [2-[[(3-chlorophenyl)methyl]amino]ethylidene]bis- (9CI)
(CA INDEX NAME)

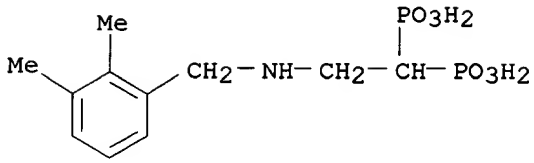


RN 204984-23-6 CAPLUS
CN Phosphonic acid, [2-[[(2-chlorophenyl)methyl]amino]ethylidene]bis- (9CI)
(CA INDEX NAME)

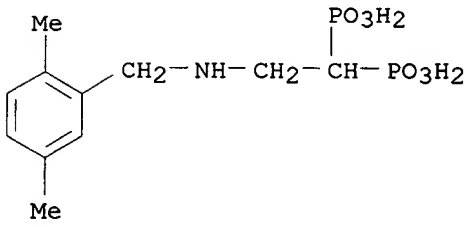


RN 204984-24-7 CAPLUS
CN Phosphonic acid, [2-[[(2,3-dimethylphenyl)methyl]amino]ethylidene]bis-

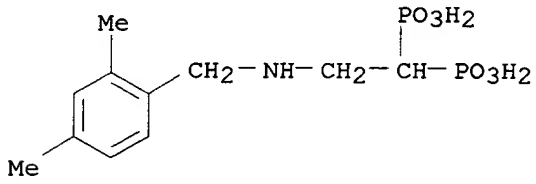
(9CI) (CA INDEX NAME)



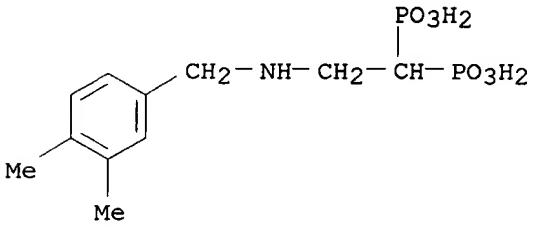
RN 204984-25-8 CAPLUS
CN Phosphonic acid, [2-[[(2,5-dimethylphenyl)methyl]amino]ethylidene]bis-
(9CI) (CA INDEX NAME)



RN 204984-26-9 CAPLUS
CN Phosphonic acid, [2-[[(2,4-dimethylphenyl)methyl]amino]ethylidene]bis-
(9CI) (CA INDEX NAME)

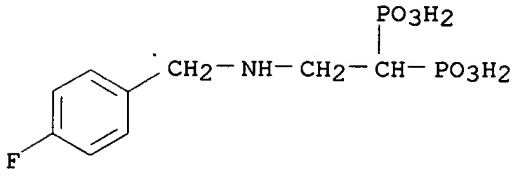


RN 204984-27-0 CAPLUS
CN Phosphonic acid, [2-[[(3,4-dimethylphenyl)methyl]amino]ethylidene]bis-
(9CI) (CA INDEX NAME)

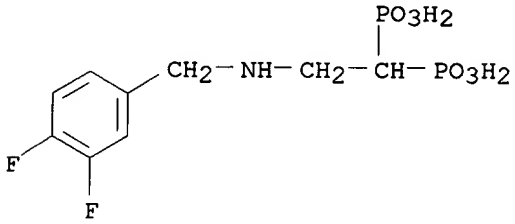


RN 204984-41-8 CAPLUS

CN Phosphonic acid, [2-[[(4-fluorophenyl)methyl]amino]ethylidene]bis- (9CI) (CA INDEX NAME)



RN 204984-42-9 CAPLUS
CN Phosphonic acid, [2-[[(3,4-difluorophenyl)methyl]amino]ethylidene]bis- (9CI) (CA INDEX NAME)



RN 204984-43-0 CAPLUS
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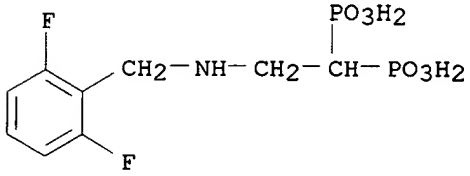

RN 204984-44-1 CAPLUS
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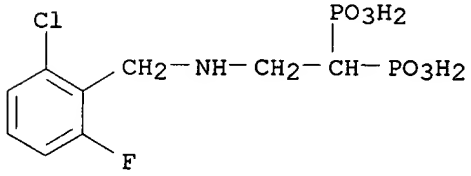

RN 204984-45-2 CAPLUS
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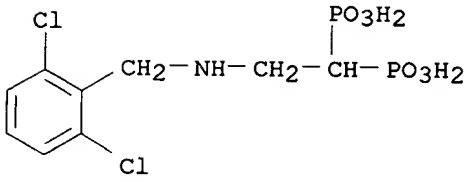
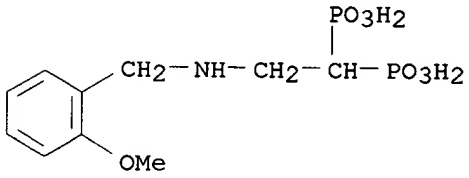
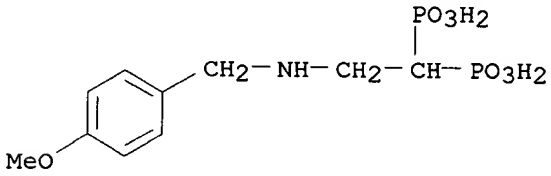
(9CI) (CA INDEX NAME)



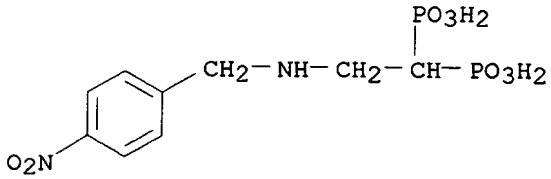
RN 204984-59-8 CAPLUS
CN Phosphonic acid, [2-[[(2-methoxyphenyl)methyl]amino]ethylidene]bis- (9CI) (CA INDEX NAME)



RN 204984-91-8 CAPLUS
CN Phosphonic acid, [2-[[(4-methoxyphenyl)methyl]amino]ethylidene]bis- (9CI) (CA INDEX NAME)



RN 204985-19-3 CAPLUS
CN Phosphonic acid, [2-[[(4-nitrophenyl)methyl]amino]ethylidene]bis- (9CI) (CA INDEX NAME)



RN 204985-68-2 CAPLUS
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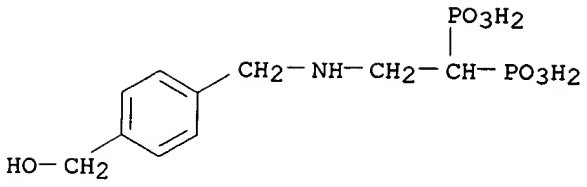

RN 204985-78-4 CAPLUS
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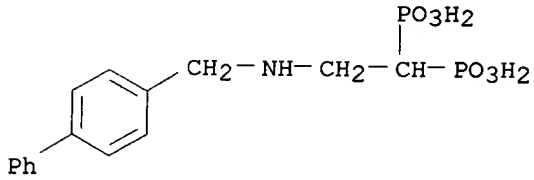

RN 204986-39-0 CAPLUS
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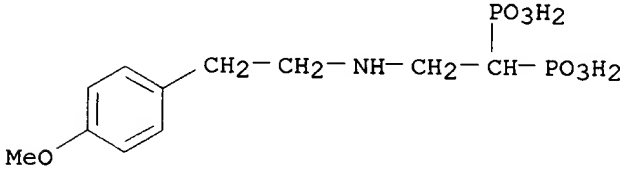
(CA INDEX NAME)



RN 204986-41-4 CAPLUS
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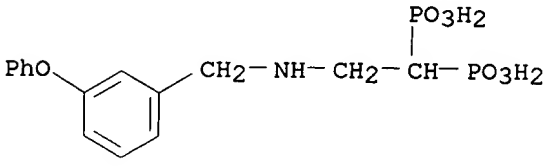
(CA INDEX NAME)



L18 ANSWER 3 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:38896 CAPLUS
DOCUMENT NUMBER: 128:61631

TITLE: Preparation of novel derivatives of (aminomethylene)bis(phosphonic acid) as herbicides
INVENTOR(S): Soloducho, Jadwiga; Gancarz, Roman; Wieczorek, Piotr; Korf, Joanna; Hafner, Joanna; Lejczak, Barbara; Kafarski, Pawel
PATENT ASSIGNEE(S): Politechnika Wroclawska, Pol.; Wyzsza Szkola Pedagogiczna
SOURCE: Pol., 3 pp.
CODEN: POXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Polish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

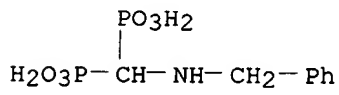
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PL 172268	B1	19970829	PL 1993-298436	19930408

OTHER SOURCE(S): CASREACT 128:61631; MARPAT 128:61631

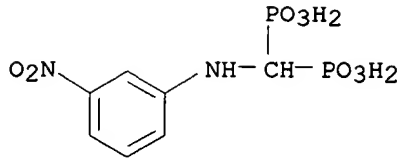
AB Title compds. RR1NCH(PO3H2)2 (R = H; Ph; C6H4X, C6H3X2, X = Cl, Br; C6H4NO2; benzyl; C3-6 cycloalkyl; C1-6 alkyl; R1 = H; RR1 = oxydiethylene), useful as herbicides, are prepd. by heating to reflux an aliph., alicyclic, or arom. amine with an alkyl orthoformate and a dialkyl phosphite, preferably di-Et, followed by hydrolysis of the crude product with HCl and isolation of the product by crystn. or ion-exchange chromatog. In an example, 0.05 mol m-nitroaniline is heated to reflux with an equimolar amt. of (EtO)3CH and 0.1 mol di-Et phosphite at 373 K for 12 h, whereupon the alc. formed is distd. off and the residue is crystd. and hydrolyzed in 20 cm3 6N HCl at 368 K to afford 80% m-O2NC6H4NHCH(PO3H2)2. This compd. inhibited the growth of Lepidium sativum up to 90% when applied in 5.0 mM concn. to the roots of the plants.

IT **32545-71-4P 194999-99-0P 195000-01-2P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(prepn. of (aminomethylene)bis(phosphonic acid) derivs. as herbicides)

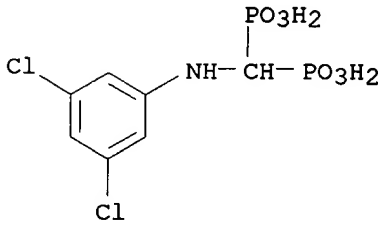
RN 32545-71-4 CAPLUS
CN Phosphonic acid, [[(phenylmethyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 194999-99-0 CAPLUS
CN Phosphonic acid, [[(3-nitrophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 195000-01-2 CAPLUS
CN Phosphonic acid, [[(3,5-dichlorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



L18 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:596830 CAPLUS
DOCUMENT NUMBER: 127:216305
TITLE: Herbicidal derivatives of aminomethylenebisphosphonic acid. Part III. Structure-activity relationship
AUTHOR(S): Kafarski, P.; Lejczak, B.; Forlani, G.; Gancarz, R.; Torreilles, C.; Grembecka, J.; Ryczek, A.; Wieczorek, P.
CORPORATE SOURCE: Institute of Organic Chemistry, Biochemistry, and Biotechnology, Technical University of Wroclaw, Wroclaw, 50-370, Pol.
SOURCE: J. Plant Growth Regul. (1997), 16(3), 153-158
CODEN: JPGRDI; ISSN: 0721-7595
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English

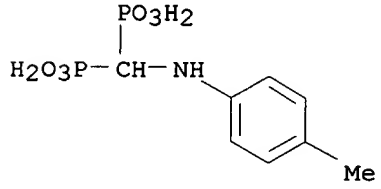
AB Derivs. of aminomethylenebisphosphonic acids constitute a class of promising herbicides. More than 40 N-substituted aminomethylenephosphonic acids were synthesized and evaluated for their herbicidal activity on common cress (Lepidium sativum L.) and cucumber (Cucumis sativus L.). Some of the tested compds. were found to exhibit strong herbicidal properties being equal in activity with the popular herbicide glyphosate as well as parent N-pyridylaminomethylenephosphonic acids. N-Substituted iminodi(methylenephosphonic) acids, which may be considered as close analog of glyphosate, were inactive toward test plants.

IT **73269-57-5P 194999-99-0P 195000-00-1P 195000-01-2P 195000-02-3P 195000-03-4P 195000-04-5P 195000-05-6P 195001-38-8P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**
(prepn. and herbicidal activity of aminomethylenebisphosphonic acid and

their structure-activity relationship)

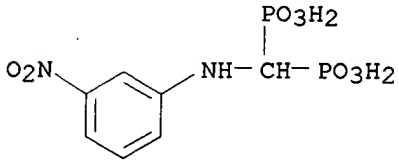
RN 73269-57-5 CAPLUS

CN Phosphonic acid, [[(4-methylphenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



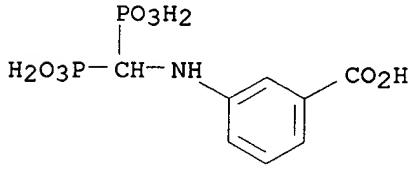
RN 194999-99-0 CAPLUS

CN Phosphonic acid, [[(3-nitrophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



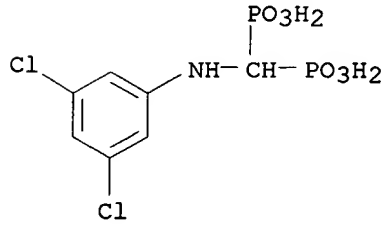
RN 195000-00-1 CAPLUS

CN Benzoic acid, 3-[(diphosphonomethyl)amino]- (9CI) (CA INDEX NAME)



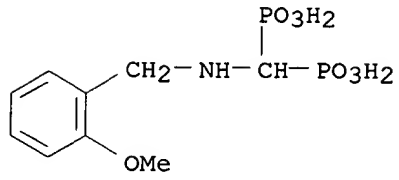
RN 195000-01-2 CAPLUS

CN Phosphonic acid, [[(3,5-dichlorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)

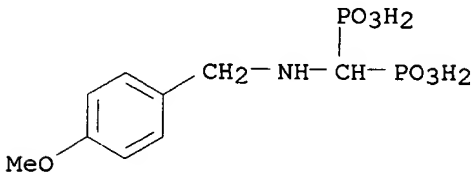


RN 195000-02-3 CAPLUS

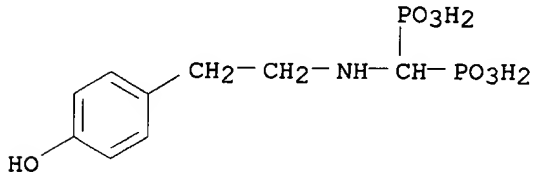
CN Phosphonic acid, [[[(2-methoxyphenyl)methyl]amino]methylene]bis- (9CI) (CA INDEX NAME)



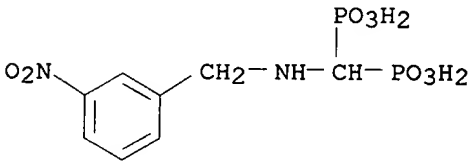
RN 195000-03-4 CAPLUS
CN Phosphonic acid, [[[(4-methoxyphenyl)methyl]amino]methylene]bis- (9CI) (CA INDEX NAME)



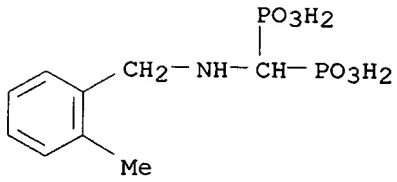
RN 195000-04-5 CAPLUS
CN Phosphonic acid, [[[2-(4-hydroxyphenyl)ethyl]amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 195000-05-6 CAPLUS
CN Phosphonic acid, [[[(3-nitrophenyl)methyl]amino]methylene]bis- (9CI) (CA INDEX NAME)



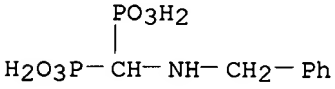
RN 195001-38-8 CAPLUS
CN Phosphonic acid, [[[(2-methylphenyl)methyl]amino]methylene]bis- (9CI) (CA INDEX NAME)



L18 ANSWER 5 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:750334 CAPLUS
DOCUMENT NUMBER: 126:100638
TITLE: Mode of action of herbicidal derivatives of aminomethylenebisphosphonic acid. I. Physiologic activity and inhibition of anthocyanin biosynthesis
AUTHOR(S): Lejczak, B.; Boduszek, B.; Kafarski, P.; Forlani, G.; Wojtasek, H.; Wieczorek, P.
CORPORATE SOURCE: Institute Organic Chemistry, Biochemistry, & Biotechnology, Technical Univ. Wroclaw, Wroclaw, Pol.
SOURCE: J. Plant Growth Regul. (1996), 15(3), 109-113
CODEN: JPGRDI; ISSN: 0721-7595
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English

AB N-Pyridylaminomethylenebisphosphonic acids constitute a class of promising herbicides. Since their mode of action at the cellular level is still poorly understood, the authors studied the influence of N-pyridylaminomethylenebisphosphonic acids on plant growth, at the whole plant and undifferentiated tissue levels, using seedlings and cell suspension cultures of mono- and dicotyledonous species. These compds. exhibited strong herbicidal properties, being equipotent with glyphosate. Since they also depressed buck weed anthocyanin biosynthesis, the shikimate pathway could represent a site of action of N-pyridylaminomethylenebisphosphonic acids. Prepn. of the compds. is given.

IT **32545-71-4P**
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(prepn. and mechanism of herbicidal activity of)
RN 32545-71-4 CAPLUS
CN Phosphonic acid, [[(phenylmethyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



L18 ANSWER 6 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:705780 CAPLUS
DOCUMENT NUMBER: 125:320562

TITLE: Preparation of herbicidal bisphosphonic acids
INVENTOR(S): Fisher, Karl J.; Woolard, Frank X.; Leadbetter, Michael R.; Gerdes, John M.
PATENT ASSIGNEE(S): Zeneca Limited, UK
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

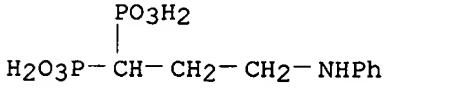
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9631124	A1	19961010	WO 1996-US4869	19960408
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
US 5728650	A	19980317	US 1995-418970	19950407
AU 9654475	A1	19961023	AU 1996-54475	19960408
EP 820230	A1	19980128	EP 1996-911660	19960408
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
BR 9604975	A	19980609	BR 1996-4975	19960408
JP 11503429	T2	19990326	JP 1996-530540	19960408
NO 9704619	A	19971006	NO 1997-4619	19971006
PRIORITY APPLN. INFO.:			US 1995-418970	19950407
			US 1993-133722	19931007
			WO 1996-US4869	19960408

OTHER SOURCE(S): MARPAT 125:320562

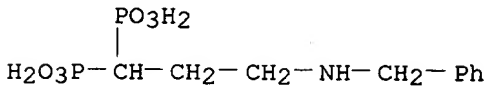
AB The bisphosphonic acids R6R7NCR4R5(CR2R3)nCR1(PO3H2)2 [n = 1-6; R1 = H, OH, alkoxy, halo, etc.; R2-5 = H = (un)substituted hydrocarbyl, etc.; R6,R7 = H, (un)substituted hydrocarbyl, (un)substituted pyridyl, (un)substituted amine, etc.; R6NR7 = piperazine, aziridine, morpholine, etc.] or their salts or hydrolyzable esters are prepd. as herbicides. The herbicidal compns. exhibit efficacy when applied to plants post-emergence, but not pre-emergence.

IT **183446-62-0P 183446-77-7P 183446-85-7P 183447-31-6P 183447-32-7P 183447-35-0P 183447-36-1P**
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)
(prepn. as herbicide)

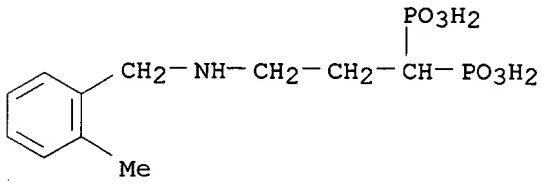
RN 183446-62-0 CAPLUS
CN Phosphonic acid, [3-(phenylamino)propylidene]bis- (9CI) (CA INDEX NAME)



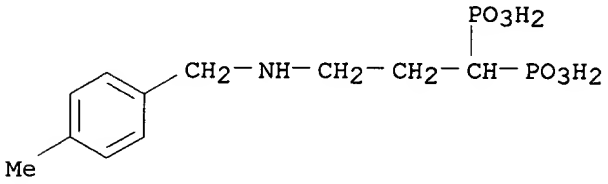
RN 183446-77-7 CAPLUS
CN Phosphonic acid, [3-[(phenylmethyl)amino]propylidene]bis- (9CI) (CA INDEX NAME)



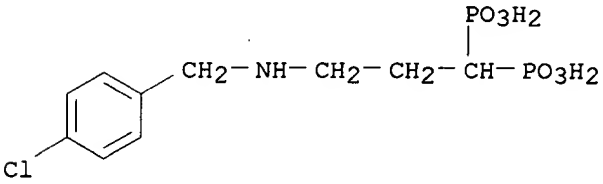
RN 183446-85-7 CAPLUS
CN Phosphonic acid, [3-[[(2-methylphenyl)methyl]amino]propylidene]bis- (9CI) (CA INDEX NAME)



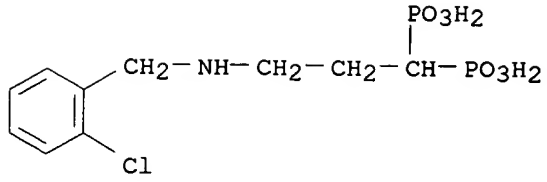
RN 183447-31-6 CAPLUS
CN Phosphonic acid, [3-[[(4-methylphenyl)methyl]amino]propylidene]bis- (9CI) (CA INDEX NAME)



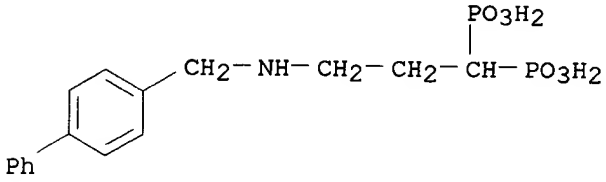
RN 183447-32-7 CAPLUS
CN Phosphonic acid, [3-[[(4-chlorophenyl)methyl]amino]propylidene]bis- (9CI) (CA INDEX NAME)



RN 183447-35-0 CAPLUS
CN Phosphonic acid, [3-[[(2-chlorophenyl)methyl]amino]propylidene]bis- (9CI) (CA INDEX NAME)



RN 183447-36-1 CAPLUS
CN Phosphonic acid, [3-[([1,1'-biphenyl]-4-ylmethyl)amino]propylidene]bis- (9CI) (CA INDEX NAME)



L18 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1995:750617 CAPLUS
DOCUMENT NUMBER: 123:144276
TITLE: Herbicidal aza bisphosphonic acid compositions
INVENTOR(S): Fisher, Karl Joseph; Woolard, Frank Xavier; Gerdes, John Montgomery
PATENT ASSIGNEE(S): Zeneca Ltd., UK
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9510188	A2	19950420	WO 1994-GB2183	19941007
WO 9510188	A3	19950504		
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
ZA 9407814	A	19950814	ZA 1994-7814	19941006
CA 2173607	AA	19950420	CA 1994-2173607	19941007
AU 9477901	A1	19950504	AU 1994-77901	19941007
AU 690581	B2	19980430		
EP 722268	A1	19960724	EP 1994-928482	19941007
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				

CN 1134657	A	19961030	CN 1994-194096	19941007
HU 74893	A2	19970228	HU 1996-839	19941007
BR 9407762	A	19970304	BR 1994-7762	19941007
JP 09506075	T2	19970617	JP 1994-511442	19941007
NO 9601389	A	19960603	NO 1996-1389	19960403
FI 9601520	A	19960527	FI 1996-1520	19960404
PRIORITY APPLN. INFO.:			US 1993-133722	19931007
			WO 1994-GB2183	19941007

OTHER SOURCE(S): MARPAT 123:144276

AB The title compds. R4R5NCR2R3CR1(PO3H2)2 wherein R1 is hydrogen, hydroxy, C1-C4 alkoxy, halogen, C1-C4 alkyl, C1-C4 haloalkyl, hydroxy-C1-C4-alkyl, hydroxy-C1-C4-alkoxy or N(R6)(R7) wherein R6 and R7 are each independently H or C1-C3 alkyl; R2 and R3 are each independently H, hydrocarbyl, substituted hydrocarbyl, hydrocarbyloxy, substituted hydrocarbyloxy, hydrocarbyl-S(O)m, or substituted hydrocarbyl-S(O)m; or R2 and R3 together from a 3-6 membered carbocyclic ring, optionally substituted with halogen, hydroxy, C1-C6 alkyl, C1-C6 alkoxy, C1-C6 alkylthio or N(R8)(R9) wherein R8 and R9 are each independently H or C1-C12 alkyl; and R4 and R5 are each independently H, hydrocarbyl, substituted hydrocarbyl, hydrocarbyloxy, substituted hydrocarbyloxy, hydrocarbylthio, substituted pyridyl, or are N(R10)(R11) wherein R10 and R11 are independently H, hydrocarbyl or substituted hydrocarbyl; or R4 and R5 together with the N to which they are bound form an aziridine, piperazine, morpholine, thiomorpholine, thiomorpholine sulfinyl, thiomorpholine sulfonyl, hexamethyleneimine, piperidine, tetrahydropyridine, pyrazole, imidazole, pyrrole, triazole, tetrahydropyrimidine, dihydroimidazole, pyrroline, azetidine, perhydroindole, perhydroquinoline, perhydroisoquinoline or pyrrolidine ring, and of which may be optionally substituted with C1-C12 alkyl, halo, C6-C10 aryl etc. were prepd. A representative prepd. compd. is 2-[1-(1,2,4-triazole)]ethyl-1,1-bisphosphonic acid. In other aspects, this invention is directed to a method of controlling the growth of plants comprising applying to the area where control is desired an herbicidally effective amt. of the title compds.; as well as to certain novel compds. having a structure within the scope of the title compds.. above.

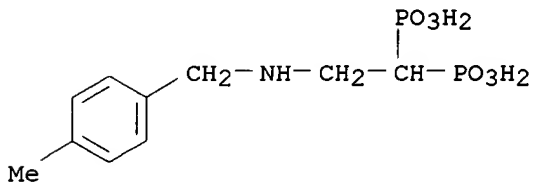
IT **166747-10-0P**

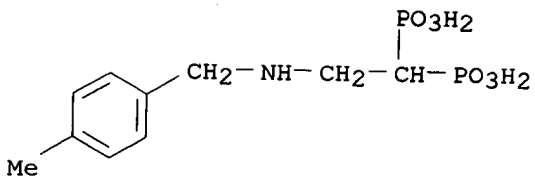
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)

(prepn. of aminoethylidenediphosphonates as herbicides)

RN 166747-10-0 CAPLUS

CN Phosphonic acid, [2-[[(4-methylphenyl)methyl]amino]ethylidene]bis- (9CI) (CA INDEX NAME)



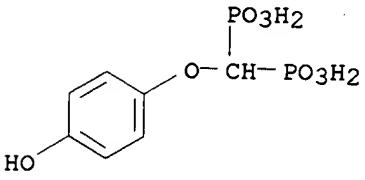


L18 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:428231 CAPLUS
DOCUMENT NUMBER: 119:28231
TITLE: 4-Hydroxyphenoxymethylene bisphosphonic acid derivatives: potent, non-hydrolyzable inhibitors of myo-inositol monophosphatase
AUTHOR(S): Fletcher, Stephen R.; Baker, Raymond; Ladduwahetty, Tamara; Sharpe, Andrew; Teall, Martin; Atack, John R.
CORPORATE SOURCE: Neurosci. Res. Cent., Merck, Sharp and Dohme Res. Lab., Terlings Park/Harlow, UK
SOURCE: Bioorg. Med. Chem. Lett. (1993), 3(2), 141-6
CODEN: BMCLE8; ISSN: 0960-894X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 119:28231

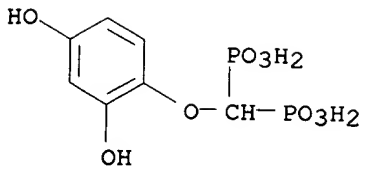
AB From a series of 4-hydroxyphenoxymethylene bisphosphonic acid derivs., 1-(4-hydroxyphenoxy-)-1-(methyl)methylenebisphosphonic acid was identified as a structurally simple, competitive inhibitor of myo-inositol monophosphatase (IC50, 0.33 .mu.M). Replacement of the 1-Me group by a 3-(3,4-dichlorobenzamido)benzyl substituent affords the most potent inhibitor of the series (IC50, 0.08 .mu.M).

IT **104407-97-8P 147875-55-6P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. and inhibition by, of myo-inositol monophosphatase)

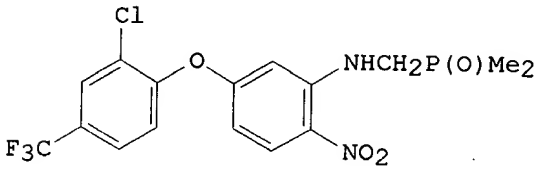
RN 104407-97-8 CAPLUS
CN Phosphonic acid, [(4-hydroxyphenoxy)methylene]bis- (9CI) (CA INDEX NAME)



RN 147875-55-6 CAPLUS
CN Phosphonic acid, [(2,4-dihydroxyphenoxy)methylene]bis- (9CI) (CA INDEX NAME)



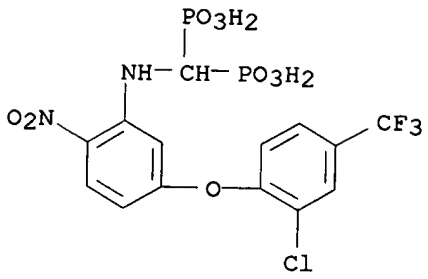
L18 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1991:247388 CAPLUS
DOCUMENT NUMBER: 114:247388
TITLE: Organic phosphorus compounds. 93. Preparation, properties and herbicidal activity of 2-substituted 5-phenoxy- and 5-pyridyloxy-phenylaminoalkyl-phosphonic- and -phosphinic acid as well as phosphine oxide derivatives
AUTHOR(S): Maier, Ludwig
CORPORATE SOURCE: Agric. Div., Ciba-Geigy A.-G., Basel, 4002, Switz.
SOURCE: Phosphorus, Sulfur Silicon Relat. Elem. (1991), 56(1-4), 5-15
CODEN: PSSLEC; ISSN: 1042-6507
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 114:247388
GI



I

AB Interaction of 4-phenoxy and 4-pyridyloxy substituted 1,2-dinitrobenzenes and aminoalkylphosphonates, -phosphinates, and -phosphine oxides produces mainly 5-phenoxy and 5-pyridyloxy substituted 2-nitrophenylaminoalkylphosphonates, -phosphinates and -phosphine oxides, e.g., I, some of which show high herbicidal and plant growth regulating activity. The herbicidal activity increases from pyridyloxy-phenylaminoalkylphosphonates to phenoxy-phenylaminoalkyl-phosphonates, -phosphinates, and -phosphine oxides. Of all the compds. tested the phosphine oxide I was at all concns. the most active compd.

IT **89175-56-4P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. and herbicidal and plant growth regulating activity of)
RN 89175-56-4 CAPLUS
CN Phosphonic acid, [[[5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrophenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)

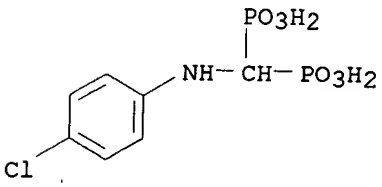


L18 ANSWER 10 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1990:552591 CAPLUS
DOCUMENT NUMBER: 113:152591
TITLE: New amino derivatives of methylenediphosphonic acid as complexons
AUTHOR(S): Gross, G.; Costisella, B.; Schwartz, K.; Kabachnik, M. I.; Bel'skii, F. I.; Polikarpov, Yu. M.
CORPORATE SOURCE: Inst. Elementoorg. Soedin. im. Nesmeyanova, Moscow, USSR
SOURCE: Zh. Obshch. Khim. (1990), 60(4), 749-54
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Russian

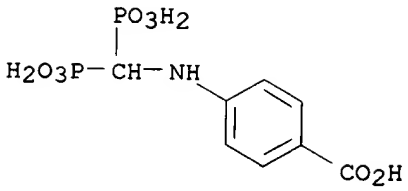
AB Three title compds. RNHCH[P(O)(OH)2]2 (R = 2-pyridyl, 4-HO2CC6H4, 4-ClC6H4) were prepd. by known methods and the stability consts. of their complexes with Mg, Ca, Mn, Co, Ni, Cu, Zn, and Cd dications were detd.

IT **59611-67-5DP**, transition metal complexes **59611-69-7DP**, transition metal complexes
RL: **PREP (Preparation)**; PRP (Properties)
(formation and stability consts. of)

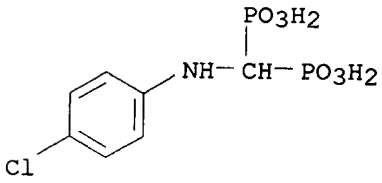
RN 59611-67-5 CAPLUS
CN Phosphonic acid, [[(4-chlorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



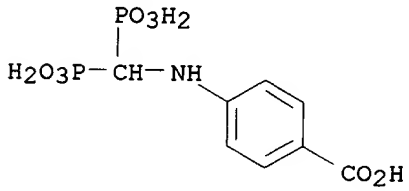
RN 59611-69-7 CAPLUS
CN Benzoic acid, 4-[(diphosphonomethyl)amino]- (9CI) (CA INDEX NAME)



IT **59611-67-5P 59611-69-7P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. and complexes of, with alkylene-earth and transition-metal dications, stability consts. of)
RN 59611-67-5 CAPLUS
CN Phosphonic acid, [[(4-chlorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)

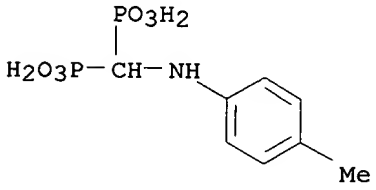


RN 59611-69-7 CAPLUS
CN Benzoic acid, 4-[(diphosphonomethyl)amino]- (9CI) (CA INDEX NAME)

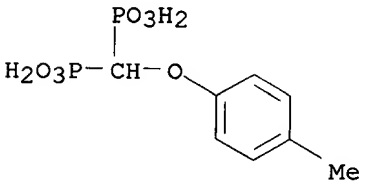


L18 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1988:186840 CAPLUS
DOCUMENT NUMBER: 108:186840
TITLE: Iminobis(methylenediphosphonic acid)
AUTHOR(S): Alfer'ev, I. S.; Bobkov, S. Yu.; Kotlyarevskii, I. L.
CORPORATE SOURCE: Inst. Khim. Kinet. Goren., Novosibirsk, USSR
SOURCE: Izv. Akad. Nauk SSSR, Ser. Khim. (1987), (4), 865-8
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The effect of various additives (AlCl3, ZnCl2, p-MeC6H4NH2, etc.) on the yield of HN[CH[P(O)(OH)2]2]2 and H2NCH[P(O)(OH)2]2 from the reaction of HCONH2 with H3PO3 and PX3 (X = Cl, Br) was studied.
IT **73269-57-5P**

RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)
RN 73269-57-5 CAPLUS
CN Phosphonic acid, [[(4-methylphenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



L18 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1988:94648 CAPLUS
DOCUMENT NUMBER: 108:94648
TITLE: Reaction of pyrophosphites with carboxylic acid esters
AUTHOR(S): Alfer'ev, I. S.; Bobkov, S. Yu.; Kotlyarevskii, I. L.
CORPORATE SOURCE: Inst. Khim. Kinet. Goren., Novosibirsk, USSR
SOURCE: Izv. Akad. Nauk SSSR, Ser. Khim. (1987), (3), 630-3
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 108:94648
AB Reaction of [(RO)2P]2O (R2 = CH2CH2, R = Et, Me2CH) with R1O2CH (R1 = pentyl, Et, p-MeC6H4) in the presence of BF3 gave 0-63% (R1O)CH[P(O)(OH)2]2 and 69-5% (HO)CH[P(O)(OH)2]2.
IT **105810-40-0P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)
RN 105810-40-0 CAPLUS
CN Phosphonic acid, [(4-methylphenoxy)methylene]bis- (9CI) (CA INDEX NAME)



L18 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1988:94647 CAPLUS
DOCUMENT NUMBER: 108:94647
TITLE: 1-Alkoxy(aryloxy)alkylidene-1,1-diphosphonic acids
AUTHOR(S): Alfer'ev, I. S.; Bobkov, S. Yu.; Kotlyarevskii, I. L.
CORPORATE SOURCE: Inst. Khim. Kinet. Goren., Novosibirsk, USSR
SOURCE: Izv. Akad. Nauk SSSR, Ser. Khim. (1987), (3), 624-30

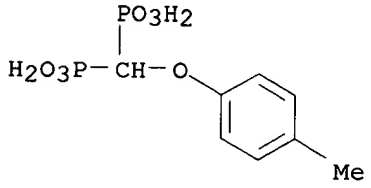
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 108:94647

AB The title compds. were prepd. by treating alkyl carboxylates with a mixt. of H3PO3 and PCl3, and with P4O6 in the presence of BF3. Thus, treating HCO2R (R = Bu, pentyl, hexyl) with H3PO3 and PCl3 gave 10-15% ROCH[P(O)(OH)2]2.

IT **105810-40-0P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)

RN 105810-40-0 CAPLUS

CN Phosphonic acid, [(4-methylphenoxy)methylene]bis- (9CI) (CA INDEX NAME)



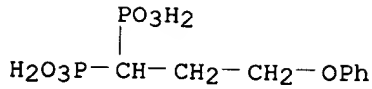
L18 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1987:459121 CAPLUS
DOCUMENT NUMBER: 107:59121
TITLE: gem-Diphosphonate and gem-phosphonate-phosphate compounds with specific high density lipoprotein inducing activity
AUTHOR(S): Nguyen Lan Mong; Niesor, Eric; Bentzen, Craig L.
CORPORATE SOURCE: Symphar S. A., Geneva, Switz.
SOURCE: J. Med. Chem. (1987), 30(8), 1426-33
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 107:59121

AB Title compds. [(RO)2P(O)]2CR1R2 [R = Me, Et, Pr, Me2CH, Bu; R1 = H, OH; R2 = alkyl, (un)substituted aryl] and (RO)2P(O)CR1R2OP(O)(OR)2 (I; same R-R2) were prepd. and examd. for activity in specifically inducing plasma high-d. lipoproteins (HDL) and HDL-cholesterol (HDL-C) in normal rats. Screening numerous compds. allowed detn. of structural variations leading to optimal plasma lipid-altering activity and antiatherosclerotic potential. I (R = Me; R1 = H; R2 = 4-ClC6H4) (SR-202, mifobate) was selected for further pharmacol. and subsequent clin. development.

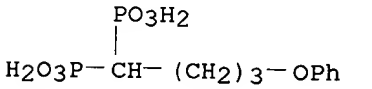
IT **108816-80-4P 108816-81-5P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. and antiatherosclerotic activity of)

RN 108816-80-4 CAPLUS

CN Phosphonic acid, (3-phenoxypropylidene)bis- (9CI) (CA INDEX NAME)



RN 108816-81-5 CAPLUS
CN Phosphonic acid, (4-phenoxybutylidene)bis- (9CI) (CA INDEX NAME)

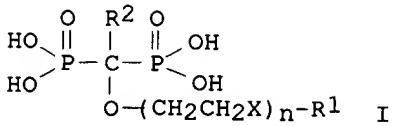


L18 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1986:553318 CAPLUS
DOCUMENT NUMBER: 105:153318
TITLE: Methylenebis(phosphonic acid) derivatives
INVENTOR(S): Binderup, Ernst Torndal
PATENT ASSIGNEE(S): Leo Pharmaceutical Products Ltd., Den.
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8600902	A1	19860213	WO 1985-DK71	19850725
W: AU, DK, FI, JP, KR, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
ZA 8505264	A	19860326	ZA 1985-5264	19850712
AU 8546736	A1	19860225	AU 1985-46736	19850725
AU 583848	B2	19890511		
EP 191044	A1	19860820	EP 1985-903807	19850725
EP 191044	B1	19900207		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 61503034	T2	19861225	JP 1985-503564	19850725
JP 06008303	B4	19940202		
AT 50262	E	19900215	AT 1985-903807	19850725
ES 545783	A1	19870901	ES 1985-545783	19850731
FI 8601357	A	19860327	FI 1986-1357	19860327
US 4732998	A	19880322	US 1986-852248	19860331
DK 8601473	A	19860401	DK 1986-1473	19860401
DK 167808	B1	19931220		

PRIORITY APPLN. INFO.: GB 1984-19489 19840731
EP 1985-903807 19850725
WO 1985-DK71 19850725

GI

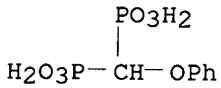


I

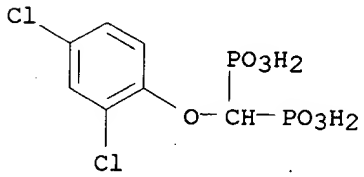
AB Phosphonates I [R1 = (substituted) C1-10 (un)satd. alkyl, aralkyl; R2 = H, C1-8 alkyl, aralkyl, halogen; X = O, S; n = 0 - 2; R2 is not H or Me if n is 0 and R1 is Me] are prepd. by an Arbusov reaction of R1(XCH2CH2)nOCHCl2 (II) with P(OR3)3 (R3 = C1-6 alkyl), treatment of the product with NaPO(OR3)2 (III), and ester cleavage of the resulting compds., with optional alkylation or halogenation, to give I. Alternatively, II may be reacted with 2 equivs. of the phosphite or of III, followed by ester cleavage etc. Salts and readily hydrolyzed (in vivo) esters of I are also claimed. These compds. are useful for the treatment of arthritic disorders, atherosclerosis, and disorders involving Ca imbalance. Thus, BuOCHClP(O)(OEt)2 was prepd. by reaction of BuOCHCl2 with P(OEt)3, and was treated with III (R3 = Et) to give the tetra-Et ester of I (R1 = Bu, R2 = H, n = 0). The ester was converted to the tris(benzylamine) salt, which was tested by s.c. administration to female rats, and showed good inhibition of bone resorption, as measured by hydroxyproline excretion. PhOCH(PO3HNa)2 (50 g) was combined with NaCl (60 g), NaOAc (20 g), HOAc, and water to 10000 mL, to give a sterile soln. of pH 5.2 for injection.

IT **104392-52-1P 104407-76-3P 104407-80-9P 104407-92-3P 104407-93-4P 104407-94-5P 104407-96-7P 104407-97-8P 104426-62-2P 105810-40-0P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of, for arthritis and calcium-metab. therapy)

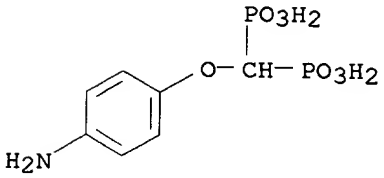
RN 104392-52-1 CAPLUS
CN Phosphonic acid, (phenoxymethylene)bis- (9CI) (CA INDEX NAME)



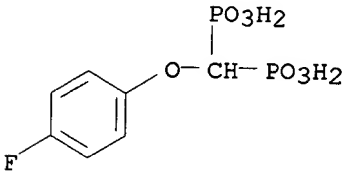
RN 104407-76-3 CAPLUS
CN Phosphonic acid, [(2,4-dichlorophenoxy)methylene]bis- (9CI) (CA INDEX NAME)



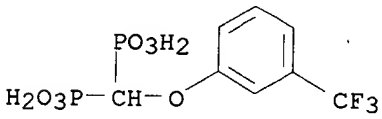
RN 104407-80-9 CAPLUS
CN Phosphonic acid, [(4-aminophenoxy)methylene]bis- (9CI) (CA INDEX NAME)



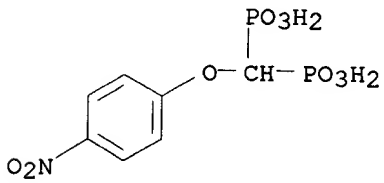
RN 104407-92-3 CAPLUS
CN Phosphonic acid, [(4-fluorophenoxy)methylene]bis- (9CI) (CA INDEX NAME)



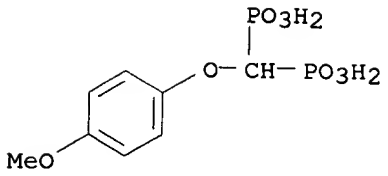
RN 104407-93-4 CAPLUS
CN Phosphonic acid, [[3-(trifluoromethyl)phenoxy]methylene]bis- (9CI) (CA INDEX NAME)



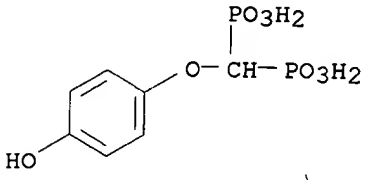
RN 104407-94-5 CAPLUS
CN Phosphonic acid, [(4-nitrophenoxy)methylene]bis- (9CI) (CA INDEX NAME)



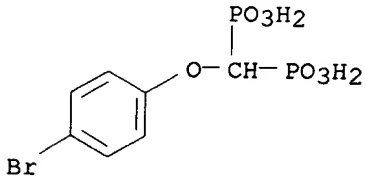
RN 104407-96-7 CAPLUS
CN Phosphonic acid, [(4-methoxyphenoxy)methylene]bis- (9CI) (CA INDEX NAME)



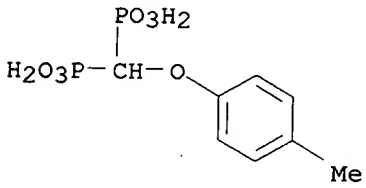
RN 104407-97-8 CAPLUS
CN Phosphonic acid, [(4-hydroxyphenoxy)methylene]bis- (9CI) (CA INDEX NAME)



RN 104426-62-2 CAPLUS
CN Phosphonic acid, [(4-bromophenoxy)methylene]bis- (9CI) (CA INDEX NAME)



RN 105810-40-0 CAPLUS
CN Phosphonic acid, [(4-methylphenoxy)methylene]bis- (9CI) (CA INDEX NAME)

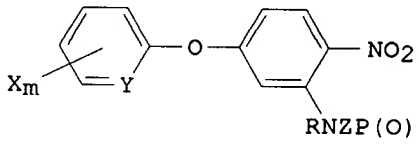


L18 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1984:121357 CAPLUS
DOCUMENT NUMBER: 100:121357
TITLE: (2-Nitro-5-aryloxyphenylamino)alkylphosphonic, -phosphinic and phosphinous acid derivatives useful as herbicides and plant growth regulators
INVENTOR(S): Maier, Ludwig
PATENT ASSIGNEE(S): Ciba-Geigy A.-G. , Switz.

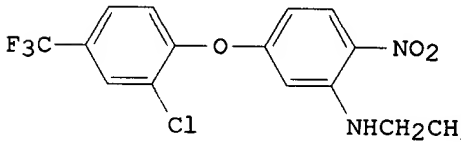
SOURCE: Eur. Pat. Appl., 39 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 93081	A2	19831102	EP 1983-810157	19830418
EP 93081	A3	19840328		
EP 93081	B1	19860319		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL				
AT 18670	E	19860415	AT 1983-810157	19830418
IL 68452	A1	19860831	IL 1983-68452	19830421
ES 521763	A1	19840701	ES 1983-521763	19830422
JP 58194893	A2	19831112	JP 1983-72048	19830423
US 4618358	A	19861021	US 1984-651968	19840919
PRIORITY APPLN. INFO.:			CH 1982-2500	19820423
			CH 1982-6585	19821111
			US 1983-484765	19830414
			EP 1983-810157	19830418

GI



I



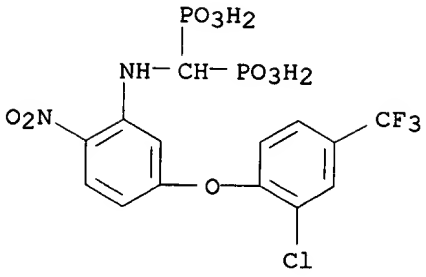
II

AB Approx. 30 title compds. I (X = halo, NO2, CN, CONH2, CSNH2; Y = CH, N; Z = alkylene; R = H, C1-4 alkyl, aralkyl; R1 = H, C1-4 alkyl, cation; R2 = C1-4 alkyl, haloalkyl, alkoxy, OH, OM, M = cation) were prepd. by treating nitrophenyl ethers with aminoalkanephosphorus acid esters followed by hydrolysis. Thus, 0.064 mol 3,4-(O2N)2C6H3OC6H3(CF3)Cl-4,2 was refluxed in PhMe with 0.128 mol H2NCH2P(O)(OCHMe2)2 to give 96% II (R3 = CHMe2) (III), which was hydrolyzed to give 92% II (R = H). At 4 kg/ha III gave 100% kill of Salanum and Sinapis after 15 days.

IT **89175-56-4P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)

RN 89175-56-4 CAPLUS

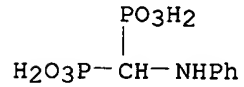
CN Phosphonic acid, [[[5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrophenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)



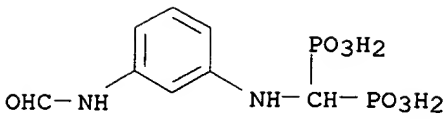
L18 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1984:23212 CAPLUS
DOCUMENT NUMBER: 100:23212
TITLE: Synthesis of ion-exchange resins with aminoalkylidenediphosphonate groups
AUTHOR(S): Petrov, K. A.; Chauzov, V. A.; Pazhitnova, N. V.
CORPORATE SOURCE: USSR
SOURCE: Vysokomol. Soedin., Ser. B (1983), 25(10), 739-41
CODEN: VYSBAI; ISSN: 0507-5483
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Ion exchanges with aminoalkylidenediphosphonate groups were prepd. by condensation of N-arylaminoalkylidenediphosphonic acids (I) in alk. media with HCHO and resorcinol or PhOH as crosslinking agent. The I monomers were prepd. by the reaction of acetanilide, formanilide, or m-phenylenebisformamide with a mixt. of PCl, and H3PO3. The ion exchange capacity (IEC) of the resins was 4.39-8.35 mg-equiv. NaOH/g. The sorption capacity of N-phenylaminomethylenediphosphonic acid-based and N-phenylaminoethylidenediphosphonic acid-based ion exchangers in H+ form for Cu2+ was 2.84 and 4.40 mg-equiv/g, resp. The higher IEC of the resins compared to their sorption capacity was due to the participation of phenolic OH groups in the ion exchange.

IT **54767-26-9P 88254-39-1P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of, for ion exchanger manuf.)
RN 54767-26-9 CAPLUS
CN Phosphonic acid, [(phenylamino)methylene]bis- (9CI) (CA INDEX NAME)



RN 88254-39-1 CAPLUS
CN Phosphonic acid, [[[3-(formylamino)phenyl]amino]methylene]bis- (9CI) (CA INDEX NAME)

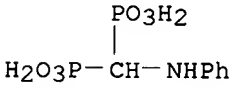


L18 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1982:158356 CAPLUS
DOCUMENT NUMBER: 96:158356
TITLE: Studies for Tc-99m labeling ability of derivatives of the aminomethanediphosphonic acid
AUTHOR(S): Unterspann, S.; Finck, W.
CORPORATE SOURCE: Radiol. Klin., Wilhelm-Pieck-Univ. Rostock, Rostock, Ger. Dem. Rep.
SOURCE: Dtsch. Gesundheitswes. (1981), 36(52), 2205-10
CODEN: DEGEA3; ISSN: 0012-0219
DOCUMENT TYPE: Journal
LANGUAGE: German

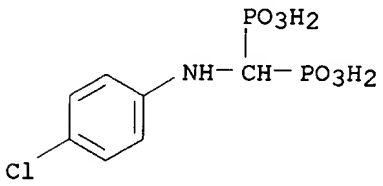
AB Aminomethanediphosphonic acid and 10 derivs. were labeled with 99mTc and were investigated in mice for bone scintigraphy. 99mTc-labeled methylaminomethanediphosphonate labeled bone to the greatest extent. The N-dimethylated and N-trimethylated derivs. were somewhat less effective than the N-monomethylated 1 but were more effective than 99mTc-labeled aminomethanediphosphonate. 99mTc-labeled butylaminomethanediphosphonate had relatively high affinity for bone. The 3 Ph contg. diphosphonates also were selectively incorporated by bone. 99mTc-labeled aminomethanediphosphonate itself was selectively incorporated by the liver.

IT **54767-26-9DP**, technetium-99 complexes **59611-67-5DP**, technetium-99 complexes **59611-70-0DP**, technetium-99 complexes
RL: BPR (Biological process); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; PROC (Process)
(prepn. and metab. of, bone scintigraphy in relation to)

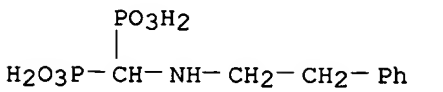
RN 54767-26-9 CAPLUS
CN Phosphonic acid, [(phenylamino)methylene]bis- (9CI) (CA INDEX NAME)



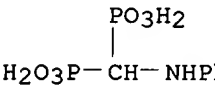
RN 59611-67-5 CAPLUS
CN Phosphonic acid, [[(4-chlorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



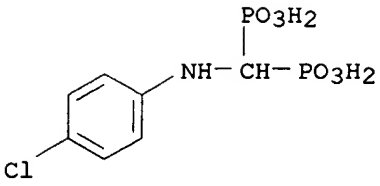
RN 59611-70-0 CAPLUS
CN Phosphonic acid, [[(2-phenylethyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



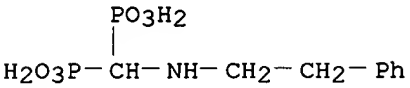
L18 ANSWER 19 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1982:64954 CAPLUS
DOCUMENT NUMBER: 96:64954
TITLE: Chemical structure and pharmacokinetics of technetium-99M-labeled aminomethane diphosphonic acid derivatives
AUTHOR(S): Unterspann, Siegfried; Finck, Wilhelm
CORPORATE SOURCE: Dep. Nucl. Med., Wilhelm-Pieck-Univ., Rostock, DDR-25, Ger. Dem. Rep.
SOURCE: Eur. J. Nucl. Med. (1981), 6(11), 527-30
CODEN: EJNMD9; ISSN: 0340-6997
DOCUMENT TYPE: Journal
LANGUAGE: English
AB 99mTc-labeled derivs. of aminomethane diphosphonic acid, as well as hydroxyethane diphosphonic acid and hydroxypropane monophosphonic acid, were investigated with regard to their suitability for skeleton scintigraphy. Bone accumulation in male rats was related to chem. structure. Compds. able to form enols were accumulated to a higher degree, and large substituents neg. influenced the affinity to bone due to steric hindrance.
IT **54767-26-9DP**, technetium-99 complexes **59611-67-5DP**, technetium-99 complexes **59611-70-0DP**, technetium-99 complexes
RL: BPR (Biological process); SPN (Synthetic preparation); BIOL (Biological study); **PREP (Preparation)**; PROC (Process)
(prepn. and metab. of, bone scintigraphy in relation to)
RN 54767-26-9 CAPLUS
CN Phosphonic acid, [(phenylamino)methylene]bis- (9CI) (CA INDEX NAME)



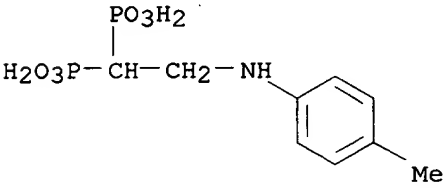
RN 59611-67-5 CAPLUS
CN Phosphonic acid, [[(4-chlorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 59611-70-0 CAPLUS
CN Phosphonic acid, [[(2-phenylethyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



L18 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1980:639522 CAPLUS
DOCUMENT NUMBER: 93:239522
TITLE: Nucleophilic addition of amines to vinylidenediphosphonic acid
AUTHOR(S): Alfer'ev, I. S.; Kotlyarevskii, I. L.; Mikhalin, N. V.; Novikova, V. M.
CORPORATE SOURCE: Inst. Khim. Kinet. Goreniya, Novosibirsk, USSR
SOURCE: Izv. Akad. Nauk SSSR, Ser. Khim. (1980), (5), 1211-12
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Addn. of RR1NH to H2C:C[P(O)(OH)2]2 gave RR1NCH2CH[P(O)(OH)2]2 (R = Et, R1 = H; R = R1 = HOCH2CH2; R = HO2CCH2, R1 = H; RR1 = (CH2CH2)2O; R = p-tolyl, R1 = H).
IT **75669-56-6P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)
RN 75669-56-6 CAPLUS
CN Phosphonic acid, [2-[(4-methylphenyl)amino]ethylidene]bis- (9CI) (CA INDEX NAME)



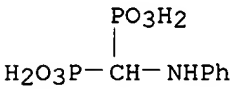
L18 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1980:164036 CAPLUS

DOCUMENT NUMBER: 92:164036
TITLE: Reactions of 1-aminoalkane-1,1-diphosphonic acids with nitrous acid
AUTHOR(S): Worms, K. H.; Blum, H.
CORPORATE SOURCE: Henkel KGaA, Duesseldorf, D-4000/1, Fed. Rep. Ger.
SOURCE: Z. Anorg. Allg. Chem. (1979), 457, 209-13
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German

AB The reaction of RC(NH2)[P(O)(OH)2]2 with HNO2 gave 52-84% RC[P(O)(OH)2]2OH (R = Ph, p-ClC6H4, 3,4-Me2C6H3, p-HOC6H4, Me, Pr, cyclohexyl). In HCl, the reaction gave 76-83% RC[P(O)(OH)2]2Cl (R = Ph, p-ClC6H4, 3,4-Me2C6H3).

IT **54767-26-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. and reaction with nitrous acid)

RN 54767-26-9 CAPLUS
CN Phosphonic acid, [(phenylamino)methylene]bis- (9CI) (CA INDEX NAME)



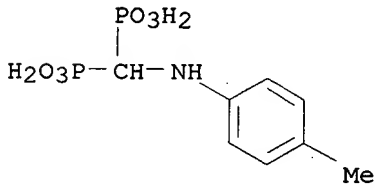
L18 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1980:146905 CAPLUS
DOCUMENT NUMBER: 92:146905
TITLE: N-Substituted aminomethylenediphosphonic acids
INVENTOR(S): Suzuki, Fumio; Fujikawa, Yoshihiro; Yamamoto, Susumu; Mizutani, Hideyoshi; Iwasawa, Yoshihiro
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54135724	A2	19791022	JP 1978-42349	19780411

AB Six aminomethylenediphosphonic acids, RR1NCH[PO(OH)2]2 [I, RR1N = p-toluidino, pyrimidin-2-ylamino, n-C8H17NH, 4-methylpiperidin-1-yl, (CH2:CHCH2)2N, 3-methylpyrazolin-5-ylamino] were prepd. by heating RR1NH with HC(OEt)3 and (EtO)2POH, followed by hydrolysis of the resulting RR1NCH[PO(OEt)2]2 (II). Thus, 5.3 g p-toluidine heated with 9.25 g HC(OEt)3 and 13.8 g (EtO)2POH at 150.degree. 1 h gave 20 g II (RR1N = p-toluidino), which (5 g) was heated with 10 mL concd. HCl 2 h to give 2.1 g I (RR1N = p-toluidino).

IT **73269-57-5P**

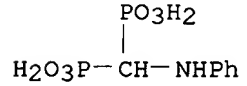
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)
RN 73269-57-5 CAPLUS
CN Phosphonic acid, [[(4-methylphenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



L18 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1979:557893 CAPLUS
DOCUMENT NUMBER: 91:157893
TITLE: 1-Aminoalkane-1,1-diphosphonic acids
INVENTOR(S): Sommer, Klaus
PATENT ASSIGNEE(S): Benckiser-Knapsack G.m.b.H., Fed. Rep. Ger.
SOURCE: Ger. Offen., 14 pp. Addn. to Ger. Offen. 2,625,767.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2754821	A1	19790613	DE 1977-2754821	19771209
DE 2754821	B2	19810108		
DE 2754821	C3	19810813		

AB Addn. of HP(O)(OH)2 to RCN gave 15 RC(NH2)[P(O)(OH)2]2. Thus, PhCN and HP(O)(OH)2 in the presence of AlCl3 or AlBr3 at 150.degree. gave 72.6% PhC(NH2)[P(O)(OH)2]2.
IT **54767-26-9P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)
RN 54767-26-9 CAPLUS
CN Phosphonic acid, [(phenylamino)methylene]bis- (9CI) (CA INDEX NAME)



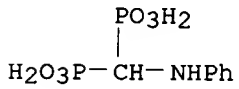
L18 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1976:433126 CAPLUS
DOCUMENT NUMBER: 85:33126
TITLE: .alpha.-Substituted phosphonates. XIX. Derivatives of aminomethanebisphosphonic acid

AUTHOR(S): Gross, H.; Costisella, B.; Gnauk, T.; Brennecke, L.
CORPORATE SOURCE: Zentralinst. Org. Chem., DAW, Berlin-Adlershof, E. Ger.
SOURCE: J. Prakt. Chem. (1976), 318(1), 116-26
CODEN: JPCEAO
DOCUMENT TYPE: Journal
LANGUAGE: German

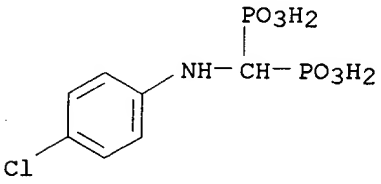
AB R1R2NCR[P(O)(OEt)2]2 (I) were prepd. by several methods. E.g., R1R2NCR(OMe)2 and HP(O)(OEt)2 gave 40-42% I [R = H, R1 = Me, R2 = PhCH2 (II), R1 = R2 = Me (III), R1R2 = (CH2)5 (IV), (CH2)2O(CH2))2 (V)]. R1R2N+:CRCl Cl- and P(OEt)2 gave 30-76% II-V and I [R = Ph, p-O2NC6H4, 3,5-(O2N)2C6H3, R1R2 = (CH2)5]. R1N:C[P(O)(OEt)2]2 were hydrogenated with NaBH4 to give 70-81% I (R = R2 = H, R1 = Ph, o-, p-ClC6H4, m-O2NC6H4, p-EtO2CC6H4). The aminomethanebisphosphonates prepd. were hydrolyzed to give the phosphonic acids. E.g., hydrolysis of I gave 72-93% R1R2NCH[P(O)(OH)2]2 [R1 = R2 = Me, R1R2 = (CH2)5, (CH2)2O(CH2)2, R1 = Ph, o-, p-ClC6H4, p-HO2CC6H4, R2 = H].

IT **54767-26-9P 59611-67-5P 59611-68-6P 59611-69-7P 59611-70-0P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)

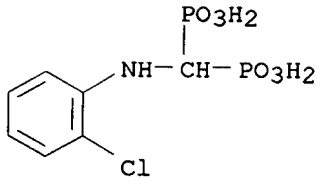
RN 54767-26-9 CAPLUS
CN Phosphonic acid, [(phenylamino)methylene]bis- (9CI) (CA INDEX NAME)



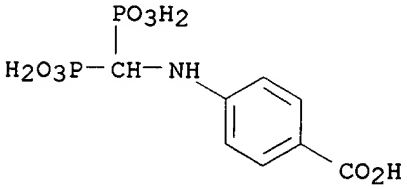
RN 59611-67-5 CAPLUS
CN Phosphonic acid, [[(4-chlorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



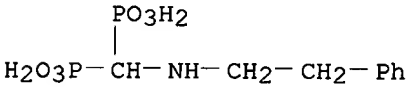
RN 59611-68-6 CAPLUS
CN Phosphonic acid, [[(2-chlorophenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 59611-69-7 CAPLUS
CN Benzoic acid, 4-[(diphosphonomethyl)amino]- (9CI) (CA INDEX NAME)

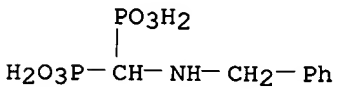


RN 59611-70-0 CAPLUS
CN Phosphonic acid, [[(2-phenylethyl)amino]methylene]bis- (9CI) (CA INDEX NAME)

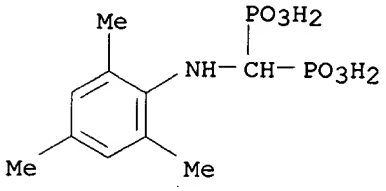


L18 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1972:434645 CAPLUS
DOCUMENT NUMBER: 77:34645
TITLE: Preparation of 1-aminoalkylidenediphosphonic acids
AUTHOR(S): Ploeger, W.; Schindler, N.; Wollmann, K.; Worms, K. H.
CORPORATE SOURCE: Henkel und Cie. G.m.b.H., Duesseldorf, Ger.
SOURCE: Z. Anorg. Allg. Chem. (1972), 389(2), 119-28
CODEN: ZAACAB
DOCUMENT TYPE: Journal
LANGUAGE: German
AB Title compds. [(HO)2P(O)]2C(R)N(R1)R2 [I; R = H, C1-15 alkyl, HO2CCH2, Ph, PhCH2, or PhCH2CH2; R1 = H or C1-18 alkyl; R2 = H, C1-18 alkyl, cyclohexyl, PhCH2, 2,4,6-Me3C6H2, or 4-pyridyl; or N(R1)R2 = piperidino or morpholino] were prepd. in 13-78% yield by reaction of H3PO3 with R2(R1)N+:C(R)XCl- (X = Cl or OH), or from PCl3-H2O and RCON(R1)R2. Reaction of HCONH2 (II) with PCl3 and H3PO3 in 1:3:1 molar ratio 1 hr at 70.degree. and hydrolysis yielded 30% (based on II) I (R = R1 = R2 = H), whereas on reaction of II with PCl3 in 1:0.33 molar ratio 2 hr at 60.degree. and hydrolysis 30% (based on PCl3) 5-amino-2-hydroxy-1,4,2-oxazaphospholidine-3-phosphonic acid 2-oxide was obtained.

IT **32545-71-4P 37634-97-2P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)
RN 32545-71-4 CAPLUS
CN Phosphonic acid, [[(phenylmethyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



RN 37634-97-2 CAPLUS
CN Phosphonic acid, [[(2,4,6-trimethylphenyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



L18 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1971:436335 CAPLUS
DOCUMENT NUMBER: 75:36335
TITLE: 1-Aminoalkane-1,1-diphosphonic acids
INVENTOR(S): Wollmann, Klaus; Ploeger, Walter; Worms, Karl H.
PATENT ASSIGNEE(S): Henkel und Cie. G.m.b.H.
SOURCE: Ger. Offen., 28 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1958123	A	19710519	DE 1969-1958123	19691119
DE 1958123	C3	19780928		
NL 7015156	A	19710524	NL 1970-15156	19701015
NL 167700	B	19810817		
NL 167700	C	19820118		
SE 373371	B	19750203	SE 1970-13950	19701015
US 3846420	A	19741105	US 1970-90454	19701117
GB 1267016	A	19720315	GB 1970-1267016	19701118
ES 385658	A1	19730316	ES 1970-385658	19701118
CH 540935	A	19731015	CH 1970-17086	19701118
FR 2069656	A5	19710903	FR 1970-41475	19701119
JP 49014733	B4	19740410	JP 1970-101890	19701119
US 3979385	A	19760907	US 1974-475207	19740531

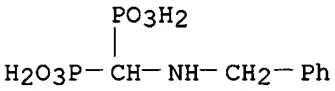
PRIORITY APPLN. INFO.: DE 1969-1958123 19691119
US 1970-90454 19701117

AB The title compds. RR1N(CH2)nCH(PO3H2)2 (I) with complexing properties, useful for water softening or as intermediates for detergents, were prepd.
by reaction of P trihalides with carboxamides. Among .apprx.20 compds. prepd. were I (R, R1, and n given): Me, Me, 0; Me, H, 1; Bu, Bu, 0, PhCH2,
H, 0; n-C18H37, n-C18H37, 0.

IT **32545-71-4P**
RL: SPN (Synthetic preparation); **PREP (Preparation)**
(prepn. of)

RN 32545-71-4 CAPLUS

CN Phosphonic acid, [[(phenylmethyl)amino]methylene]bis- (9CI) (CA INDEX NAME)



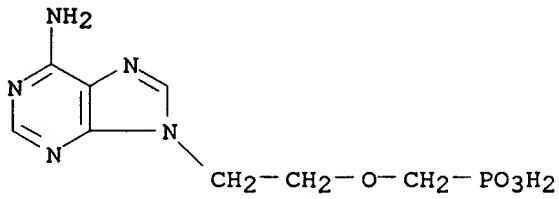
```
=> s (hiv or aids) (l) tissue factor inhibition

         36392 HIV
            67 HIVS
         36397 HIV
                 (HIV OR HIVS)
         32227 AIDS
        421332 TISSUE
        206793 TISSUES
        538748 TISSUE
                 (TISSUE OR TISSUES)
        591918 FACTOR
        475023 FACTORS
        909803 FACTOR
                 (FACTOR OR FACTORS)
        555060 INHIBITION
          3562 INHIBITIONS
        556165 INHIBITION
                 (INHIBITION OR INHIBITIONS)
            21 TISSUE FACTOR INHIBITION
                 (TISSUE(W)FACTOR(W)INHIBITION)
L1           0 (HIV OR AIDS) (L) TISSUE FACTOR INHIBITION

=> s  tissue factor inhibit?

        421332 TISSUE
        206793 TISSUES
        538748 TISSUE
                 (TISSUE OR TISSUES)
        591918 FACTOR
        475023 FACTORS
        909803 FACTOR
                 (FACTOR OR FACTORS)
       1262146 INHIBIT?
L2           95 TISSUE FACTOR INHIBIT?
                 (TISSUE(W)FACTOR(W)INHIBIT?)

=> s l2 and (aids or hiv or human immun?)

         32227 AIDS
         36392 HIV
            67 HIVS
         36397 HIV
                 (HIV OR HIVS)
        837840 HUMAN
        267008 HUMANS
        977376 HUMAN
                 (HUMAN OR HUMANS)
        556028 IMMUN?
         39514 IG
         11059 IGS
         44503 IG
                 (IG OR IGS)
```

```
        566300 IMMUN?
                  (IMMUN? OR IG)
         38533 HUMAN IMMUN?
                  (HUMAN(W)IMMUN?)
L3           0 L2 AND (AIDS OR HIV OR HUMAN IMMUN?)

=> s tf inhibit?

          7530 TF
           304 TFS
          7736 TF
                  (TF OR TFS)
       1262146 INHIBIT?
L4           26 TF INHIBIT?
                  (TF(W)INHIBIT?)

=> s l4 (l) (hiv or aids)

         36392 HIV
            67 HIVS
         36397 HIV
                  (HIV OR HIVS)
         32227 AIDS
L5           0 L4 (L) (HIV OR AIDS)
```

ACCESSION NUMBER: 1997:282633 CAPLUS
DOCUMENT NUMBER: 126:324966
TITLE: Attempts to use liposomes and RBC ghosts as vectors in drug and antisense therapy of virus infection
AUTHOR(S): Grimaldi, S.; Lisi, A.; Pozzi, D.; Santoro, N.
CORPORATE SOURCE: Istituto di Medicina Sperimentale C.N.R., Rome, 00137, Italy
SOURCE: Res. Virol. (1997), 148(2), 177-180
CODEN: RESVEY; ISSN: 0923-2516
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Selective targeting of drugs or oligonucleotide for the **treatment** of viral diseases or **cancer** is the objective of new strategies that pursue therapy optimization and redn. of toxicity. In this work we report two protocols based on encapsulation of anti-human immunodeficiency virus drugs within targeted liposomes or erythrocytes. Both have been shown to be effective for the specific delivery of drugs or oligonucleotide in the **treatment** of viral infection. Liposome-mediated antisense transfer is briefly reviewed.

IT **106941-25-7**, PMEA
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of HIV-1 in macrophages with PMEA encapsulated in erythrocytes or liposomes)

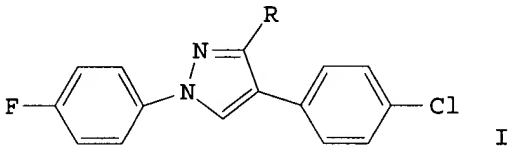
RN 106941-25-7 CAPLUS
CN Phosphonic acid, [[2-(6-amino-9H-purin-9-yl)ethoxy]methyl]- (9CI) (CA INDEX NAME)



ACCESSION NUMBER: 1983:612705 CAPLUS
DOCUMENT NUMBER: 99:212705
TITLE: Antiinflammatory and antiarthritic pyrazolylethanephosphonates.
INVENTOR(S): Biere, Helmut; Rufer, Clemens; Boettcher, Irmgard
PATENT ASSIGNEE(S): Schering A.-G. , Fed. Rep. Ger.
SOURCE: Ger. Offen., 19 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3203307	A1	19830728	DE 1982-3203307	19820127

OTHER SOURCE(S): CASREACT 99:212705
GI



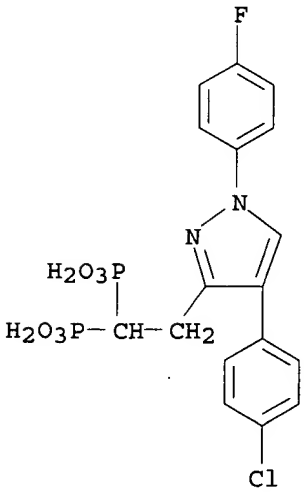
I

AB Approx. 20 title compds. I [R = CH:C(OH)P(O)(OEt)2 (II), CH2CH(OH)P(O)(ONa)2, CH2C(NH2)P(O)(OH)2, etc.] were prepd. Thus, 17.5 g 4-(p-chlorophenyl)-1-(p-fluorophenyl)-3-pyrazoleacetyl chloride in 100 mL THF was treated with 9.8 mL P(OEt)3 to give 83.4% II, which was hydrolyzed to give 74.2% I [R = CH:C(OH)P(O)(OH)2].

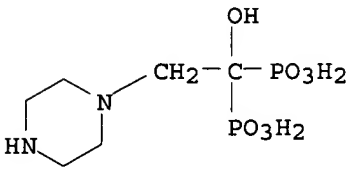
IT **87965-46-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 87965-46-6 CAPLUS

CN Phosphonic acid, [2-[4-(4-chlorophenyl)-1-(4-fluorophenyl)-1H-pyrazol-3-yl]ethylidene]bis- (9CI) (CA INDEX NAME)

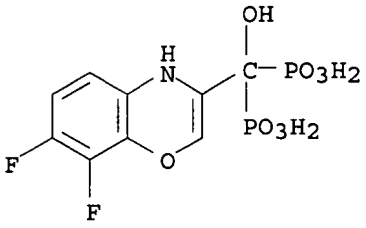


IN Phosphonic acid, [1-hydroxy-2-(1-piperazinyl)ethylidene]bis- (9CI)
MF **C6 H16 N2 O7 P2**

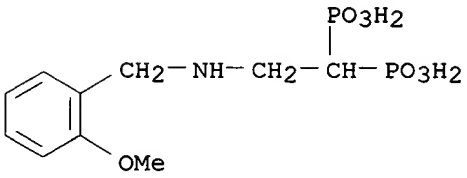


IN Phosphonic acid, [(7,8-difluoro-4H-1,4-benzoxazin-3-yl)hydroxymethylene]bis- (9CI)

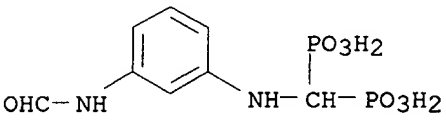
MF **C9 H9 F2 N O8 P2**



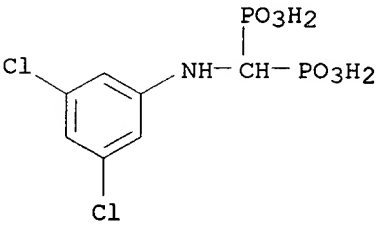
IN Phosphonic acid, [2-[[(2-methoxyphenyl)methyl]amino]ethylidene]bis- (9CI)
MF **C10 H17 N O7 P2**



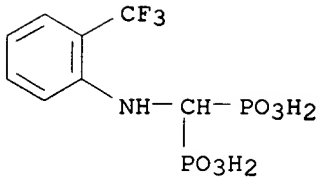
L14 83 ANSWERS REGISTRY COPYRIGHT 2000 ACS
IN Phosphonic acid, [[[3-(formylamino)phenyl]amino]methylene]bis- (9CI)
MF **C8 H12 N2 O7 P2**
CI COM



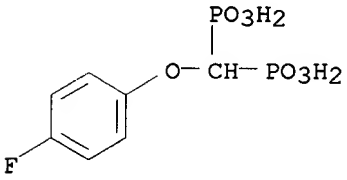
L14 83 ANSWERS REGISTRY COPYRIGHT 2000 ACS
IN Phosphonic acid, [[(3,5-dichlorophenyl)amino]methylene]bis- (9CI)
MF **C7 H9 Cl2 N O6 P2**



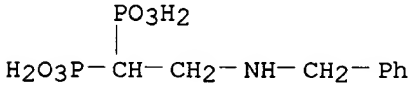
L14 83 ANSWERS REGISTRY COPYRIGHT 2000 ACS
IN Phosphonic acid, [[[2-(trifluoromethyl)phenyl]amino]methylene]bis- (9CI)
MF **C8 H10 F3 N O6 P2**



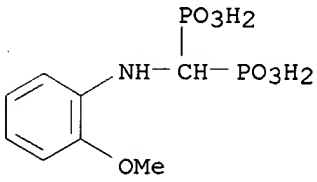
L14 83 ANSWERS REGISTRY COPYRIGHT 2000 ACS
IN Phosphonic acid, [(4-fluorophenoxy)methylene]bis- (9CI)
MF **C7 H9 F O7 P2**



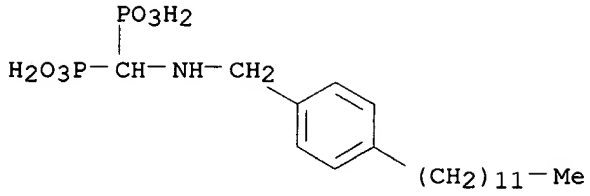
L14 83 ANSWERS REGISTRY COPYRIGHT 2000 ACS
IN Phosphonic acid, [2-[(phenylmethyl)amino]ethylidene]bis- (9CI)
MF **C9 H15 N O6 P2**



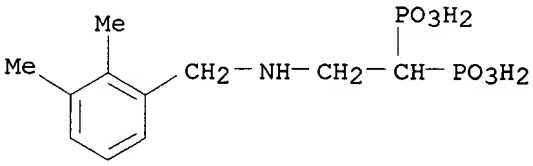
L14 83 ANSWERS REGISTRY COPYRIGHT 2000 ACS
IN Phosphonic acid, [[(2-methoxyphenyl)amino]methylene]bis- (9CI)
MF **C8 H13 N O7 P2**



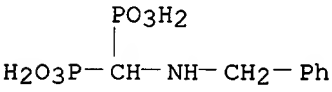
L14 83 ANSWERS REGISTRY COPYRIGHT 2000 ACS
IN Phosphonic acid, [[[(4-dodecylphenyl)methyl]amino]methylene]bis- (9CI)
MF **C20 H37 N O6 P2**



L14 83 ANSWERS REGISTRY COPYRIGHT 2000 ACS
IN Phosphonic acid, [2-[[(2,3-dimethylphenyl)methyl]amino]ethylidene]bis- (9CI)
MF **C11 H19 N O6 P2**



L14 83 ANSWERS REGISTRY COPYRIGHT 2000 ACS
IN Phosphonic acid, [[(phenylmethyl)amino]methylene]bis- (9CI)
MF **C8 H13 N O6 P2**

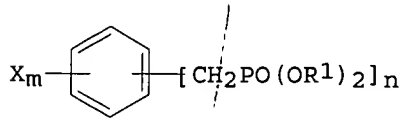


ACCESSION NUMBER: 1994:579868 CAPLUS
DOCUMENT NUMBER: 121:179868
TITLE: Preparation of arylmethylphosphonates and phosphonic acids useful as anti-inflammatory agents
INVENTOR(S): Johnson, Roy A.
PATENT ASSIGNEE(S): Upjohn Co., USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9407501	A1	19940414	WO 1993-US8353	19930910
W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
EP 661978	A1	19950712	EP 1993-921363	19930910
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08501794	T2	19960227	JP 1993-509064	19930910

PRIORITY APPLN. INFO.:
US 1992-949738 19920923
US 1992-954093 19920930
US 1992-964618 19921022
US 1993-65056 19930520
WO 1993-US8353 19930910

OTHER SOURCE(S): MARPAT 121:179868
GI

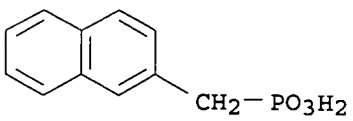


II

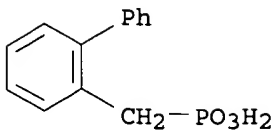
AB Title compds. ArCHXPO(R1O)2 (I; R1 = Na, K, H4N, C1-10 alkyl, PhCH2, Ph, etc.; Ar = (substituted) 1-, 2-naphthyl, 2-, 3-, 4-pyridyl, 1-, 2-, 9-anthryl, phenanthryl, substituted Ph; X = H, HO, Br, Cl, F) and II (M = 2,3; n = 3,4), are prepd. 2-(Bromomethyl)naphthalene and P(MeO)3 in MePH were refluxed for 144 h to give I (R = 2-naphthyl, X = H, R1 = Me) (III). III suppressed delayed-type hypersensitivity granuloma in mice at 10 mg/kg orally, by 54 and 50% (wet and dry wt.), resp.

IT **16672-84-7P 92025-82-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as antiinflammatory agent)

RN 16672-84-7 CAPLUS
CN Phosphonic acid, (2-naphthalenylmethyl)- (9CI) (CA INDEX NAME)



RN 92025-82-6 CAPLUS
CN Phosphonic acid, ([1,1'-biphenyl]-2-ylmethyl)- (9CI) (CA INDEX NAME)


Ph
CH2—PO3H2

ACCESSION NUMBER: 1995:632064 CAPLUS
DOCUMENT NUMBER: 123:33653
TITLE: Preparation of (phosphonoalkyl)peptide derivatives as inhibitors of endothelin converting enzyme.
INVENTOR(S): Ishikawa, Kiyofumi; Jukami, Takehiro; Hayama, Takashi; Matsuyama, Kenji; Noguchi, Kazuhito; Yano, Mitauo
PATENT ASSIGNEE(S): Banyu Pharmaceutical Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 623625	A1	19941109	EP 1993-107203	19930504
R: CH, DE, FR, GB, IT, LI, NL				

OTHER SOURCE(S): MARPAT 123:33653

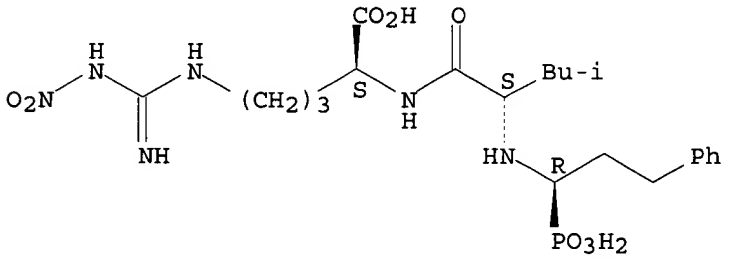
AB H2O3PCH[(CH2)nR1]NHCHR2COAOH [n = 2, 3; R1 = H, (substituted) Ph, naphthyl, indolyl, benzothienyl, benzofuryl, benzoxazolyl; R2 = alkyl, benzyl, 4-hydroxybenzyl, 3-indolylmethyl, .beta.-phenethyl; A = Trp, Tyr, Phe, homoPhe, .alpha.-naphthylalanyl, N.omega.-nitroarginyl], were prepd. Thus, a mixt. of H-Leu-Trp-OBzl and PhCH2CH2CHO was refluxed 2 h in a Dean-Stark app.; dibenzyl phosphite and MeCN were added to the mixt. which was stirred at 80.degree. for 19 h to give N-[N-(1-dibenzyloxyphosphoryl-3-phenylpropyl)leucyl]tryptophan benzyl ester as a mixt. of diastereomers. The diastereomers were sep. hydrogenolyzed to give, after treatment with KOH, tripotassium N-[N-(3-phenyl-1-phosphonopropyl)leucyl]tryptophan diastereomers. One of the diastereomers at 10 .mu.M showed 88% inhibition of endothelin converting enzyme.

IT **164061-30-7P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)

RN 164061-30-7 CAPLUS

CN L-Ornithine, N5-[imino(nitroamino)methyl]-N2-[N-(3-phenyl-1-phosphonopropyl)-L-leucyl]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT Antidiabetics and Hypoglycemics
Antihypertensives
(prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)

IT Thromboangiitis obliterans
(treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)

IT Blood vessel, disease
(Raynaud's phenomenon, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)

IT Heart, disease
(angina pectoris, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Bronchodilators
(antiasthmatics, prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Antiarteriosclerotics
(antiatherosclerotics, prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Artery, disease
(aortic arch syndrome, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Brain, disease
(cerebrum, vasospasm, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Peptides, preparation
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(di-, prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Lymph node
(disease, mucocutaneous lymph node syndrome, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Organ
(disease, multiple organ failure, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT **Blood coagulation**
(disorder, disseminated intravascular, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Shock
(endotoxin, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Heart, disease
(failure, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Kidney, disease
(failure, acute, prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Brain, disease
Heart, disease
(infarction, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Intestine, disease
(inflammatory, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT Heart, disease
(restenosis, treatment; prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT 152290-30-7P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of (phosphonolalkyl)peptide derivs. as inhibitors of endothelin converting enzyme)
IT 152290-31-8P 152290-32-9P 152290-33-0P 152290-34-1P 152290-35-2P
152290-36-3P 152290-38-5P 152290-39-6P 152376-06-2P 152376-07-3P
152376-08-4P 152376-09-5P 152376-10-8P 152376-11-9P 152376-12-0P
152376-14-2P 152376-15-3P 164061-29-4P **164061-30-7P**
164061-39-6P 164202-33-9P 164202-34-0P 164202-40-8P 164202-41-9P
164202-42-0P 164202-43-1P 164202-44-2P 164202-45-3P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)

IT 138238-81-0, Endothelin converting enzyme
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(prepn. of (phosphonolkyl)peptide derivs. as inhibitors of endothelin converting enzyme)

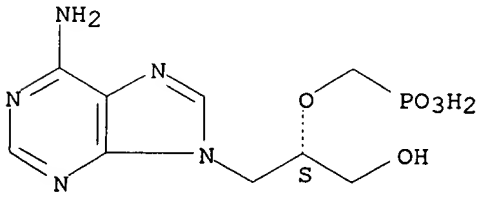
ACCESSION NUMBER: 1994:692044 CAPLUS
DOCUMENT NUMBER: 121:292044
TITLE: Dipyridamole potentiates the activity of various acyclic nucleoside phosphonates against varicella-zoster virus, herpes simplex virus and human cytomegalovirus
AUTHOR(S): Snoeck, R.; Adrei, G.; Balzarini, J.; Reymen, D.; De Clercq, E.
CORPORATE SOURCE: Rega Inst. Med. Res., Katholieke Univ. Leuven, Louvain, B-3000, Belg.
SOURCE: Antiviral Chem. Chemother. (1994), 5(5), 312-21
CODEN: ACCHEH; ISSN: 0956-3202
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Dipyridamole (DPM) is widely used in the **treatment** of **cardiovascular** diseases as a coronary vasodilator and inhibitor of platelet aggregation. Phosphonylmethoxyethyl (PME) and 3-hydroxy-2-phosphonyl-methoxypropyl (HPMP) derivs. of purines and pyrimidines are potent and selective inhibitors of varicella-zoster virus (VZV), herpes simplex virus (HSV) and human cytomegalovirus (HCMV). We have found that DPM markedly potentiates the antiviral effects of the PME derivs. of adenine (PMEA) and 2,6-diaminopurine (PMEDAP), and of the HPMP derivs. of adenine (HPMPA), 3-deazaadenine (HPMPc-3A) and cyclic HPMPA (cHMPA). This was reflected by a significant decrease in the 50% inhibitory concn. of the acyclic nucleoside phosphonates for VZV-, HSV- and HCMV-induced cytopathic effect or plaque formation. DPM did not enhance the activity of vidarabine, acyclovir or ganciclovir. These results were confirmed by virus yield assays (for HSV and HCMV) and flow cytometry (for VZV).

IT **92999-29-6**, HPMPA
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dipyridamole potentiation of antiviral effect of hydroxy-phosphonyl-methoxypropyl derivs. of adenine)

RN 92999-29-6 CAPLUS

CN Phosphonic acid, [[(1S)-2-(6-amino-9H-purin-9-yl)-1-(hydroxymethyl)ethoxy]methyl]- (9CI) (CA INDEX NAME)

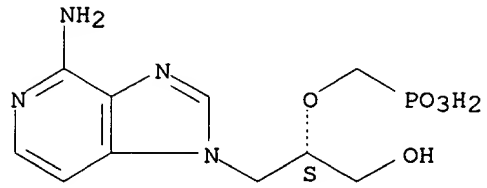
Absolute stereochemistry.



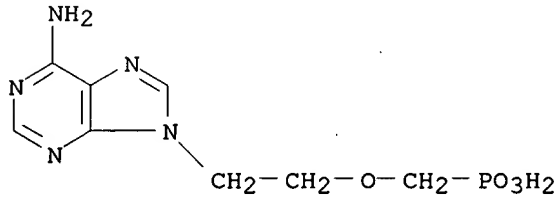
IT **128052-48-2D**, 3-deazaadenine derivs.
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dipyridamole potentiation of antiviral effect of hydroxy-phosphonyl-methoxypropyl derivs. of deazaadenine)

RN 128052-48-2 CAPLUS
CN Phosphonic acid, [[(S)-2-(4-amino-1H-imidazo[4,5-c]pyridin-1-yl)-1-(hydroxymethyl)ethoxy]methyl]- (9CI) (CA INDEX NAME)

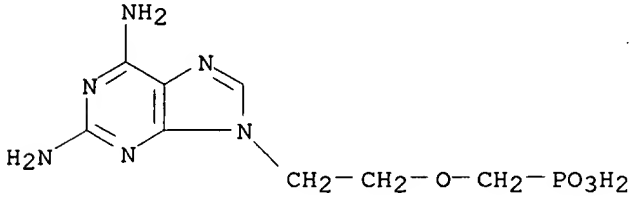
Absolute stereochemistry.



IT **106941-25-7**, PMEA
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dipyridamole potentiation of antiviral effect of phosphonylmethoxyethyl derivs. of adenine)
RN 106941-25-7 CAPLUS
CN Phosphonic acid, [[2-(6-amino-9H-purin-9-yl)ethoxy]methyl]- (9CI) (CA INDEX NAME)



IT **113852-41-8**, PMEDAP
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dipyridamole potentiation of antiviral effect of phosphonylmethoxyethyl derivs. of diaminopurine)
RN 113852-41-8 CAPLUS
CN Phosphonic acid, [[2-(2,6-diamino-9H-purin-9-yl)ethoxy]methyl]- (9CI) (CA
INDEX NAME)



ACCESSION NUMBER: 1994:692044 CAPLUS
DOCUMENT NUMBER: 121:292044
TITLE: Dipyridamole potentiates the activity of various acyclic nucleoside phosphonates against varicella-zoster virus, herpes simplex virus and human cytomegalovirus
AUTHOR(S): Snoeck, R.; Adrei, G.; Balzarini, J.; Reymen, D.; De Clercq, E.
CORPORATE SOURCE: Rega Inst. Med. Res., Katholieke Univ. Leuven, Louvain, B-3000, Belg.
SOURCE: Antiviral Chem. Chemother. (1994), 5(5), 312-21
CODEN: ACCHEH; ISSN: 0956-3202
DOCUMENT TYPE: Journal
LANGUAGE: English
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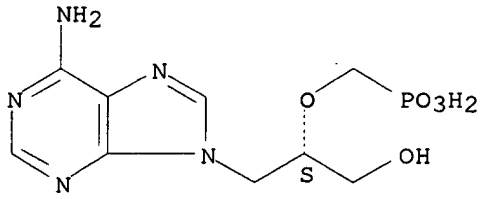
IT **92999-29-6**, HPMPA
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dipyridamole potentiation of antiviral effect of hydroxy-phosphonyl-methoxypropyl derivs. of adenine)
RN 92999-29-6 CAPLUS
CN Phosphonic acid, [[(1S)-2-(6-amino-9H-purin-9-yl)-1-(hydroxymethyl)ethoxy]methyl]- (9CI) (CA INDEX NAME)

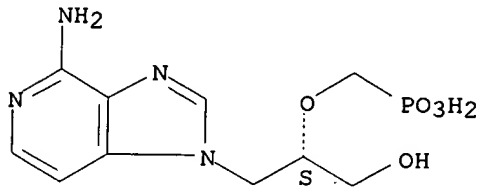
Absolute stereochemistry.



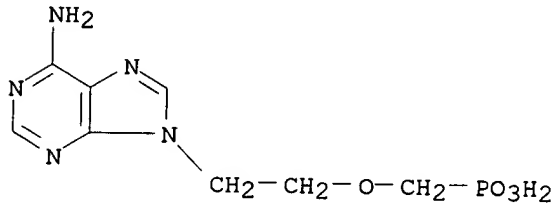
IT **128052-48-2D**, 3-deazaadenine derivs.
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dipyridamole potentiation of antiviral effect of hydroxy-phosphonyl-methoxypropyl derivs. of deazaadenine)

RN 128052-48-2 CAPLUS
CN Phosphonic acid, [[(S)-2-(4-amino-1H-imidazo[4,5-c]pyridin-1-yl)-1-(hydroxymethyl)ethoxy]methyl]- (9CI) (CA INDEX NAME)

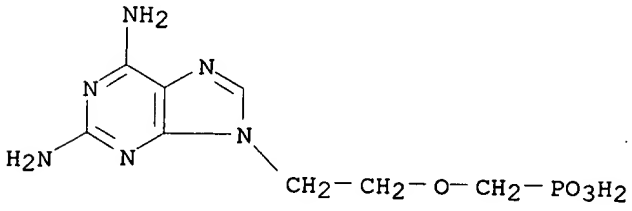
Absolute stereochemistry.



IT **106941-25-7**, PMEA
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dipyridamole potentiation of antiviral effect of phosphonylmethoxyethyl derivs. of adenine)
RN 106941-25-7 CAPLUS
CN Phosphonic acid, [[2-(6-amino-9H-purin-9-yl)ethoxy]methyl]- (9CI) (CA INDEX NAME)



IT **113852-41-8**, PMEDAP
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dipyridamole potentiation of antiviral effect of phosphonylmethoxyethyl derivs. of diaminopurine)
RN 113852-41-8 CAPLUS
CN Phosphonic acid, [[2-(2,6-diamino-9H-purin-9-yl)ethoxy]methyl]- (9CI) (CA
INDEX NAME)



Page 3

ACCESSION NUMBER: 1986:591393 CAPLUS
DOCUMENT NUMBER: 105:191393
TITLE: 2-Substituted-1,3-propylidenediphosphonate derivatives
and pharmaceutical compositions containing them
INVENTOR(S): Nguyen Mong Lan; Niesor, Eric; Bentzen, Craig L.; Guyon-Gellin, Yves; Kalathakis, Kyriacos; Phan Hieu Trung; Rossier, Jean Robert
PATENT ASSIGNEE(S): Symphar S. A., Switz.
SOURCE: Eur. Pat. Appl., 134 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 173041	A1	19860305	EP 1985-108670	19850711
EP 173041	B1	19881130		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
CH 664158	A	19880215	CH 1984-3488	19840718
AT 38991	E	19881215	AT 1985-108670	19850711
NO 8502822	A	19860120	NO 1985-2822	19850715
HU 38950	A2	19860728	HU 1985-2714	19850715
HU 193791	B	19871130		
IL 75807	A1	19890910	IL 1985-75807	19850715
ZA 8505357	A	19860226	ZA 1985-5357	19850716
US 4696920	A	19870929	US 1985-755712	19850716
FI 8502806	A	19860119	FI 1985-2806	19850717
FI 79327	B	19890831		
FI 79327	C	19891211		
DK 8503241	A	19860119	DK 1985-3241	19850717
AU 8545114	A1	19860123	AU 1985-45114	19850717
AU 581442	B2	19890223		
ES 545330	A1	19861216	ES 1985-545330	19850717
SU 1375141	A3	19880215	SU 1985-3926752	19850717
CS 262421	B2	19890314	CS 1985-5305	19850717
CA 1284320	A1	19910521	CA 1985-486929	19850717
JP 61040294	A2	19860226	JP 1985-157081	19850718
JP 05041155	B4	19930622		
CN 85106701	A	19870325	CN 1985-106701	19850905
CN 1009199	B	19900815		
PRIORITY APPLN. INFO.:			CH 1984-3488	19840718
			EP 1985-108670	19850711

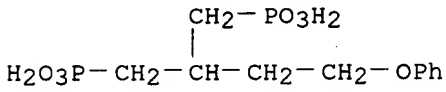
AB Title derivs. RCH[CH2P(O)(OR1)(OR2)]2 [I; R = (un)substituted alkyl, aralkyl, etc.; R1, R2 = H, metal ion, alkyl, etc.] are prepd. as slow Ca-channel inhibitors for **treatment** of **cardiovascular** conditions. Thus, PhOCH2CH2Br and NaCH(CO2Et)2 reacted to give 72% PhOCH2CH2CH(CO2Et)2, which was reduced by LiAlH4 to give 62% PhOCH2CH2CH(CH2OH)2. Tosylation of the diol gave 82% of the corresponding ditosylate, which reacted with NaP(O)(OBu)2 to give 55-60% I (R = PhOCH2CH2, R1 = R2 = Bu) (II). At 1.0 .mu.M, II completely inhibited the binding of 3H-nitrendipine to homogenized rat cerebral membranes. I also

exhibited antihypertensive and muscle-relaxant activities. An exemplary gelatin capsule consisted of II 300, gelatin 100, glycerin 50, and K sorbate 0.5 mg/capsule.

IT **103486-15-3P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as **cardiovascular** agent)

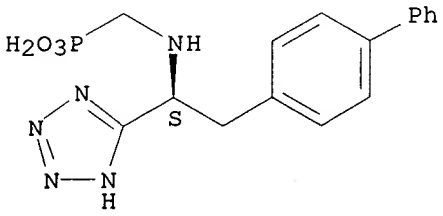
RN 103486-15-3 CAPLUS

CN Phosphonic acid, [2-(2-phenoxyethyl)-1,3-propanediyl]bis- (9CI) (CA INDEX NAME)



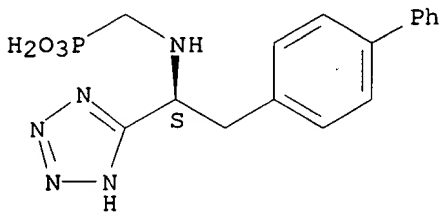
ACCESSION NUMBER: 1994:645784 CAPLUS
DOCUMENT NUMBER: 121:245784
TITLE: Pharmacological profile of a non-peptidic dual inhibitor of neutral endopeptidase 24.11 and endothelin-converting enzyme
AUTHOR(S): Lombaert, Stephane De; Ghai, Rajendra D.; Jeng, Arco Y.; Trapani, Angelo J.; Webb, Randy L.
CORPORATE SOURCE: Pharmaceuticals Div., CIBA-GEIGY Corp., Summit, NJ, 07901, USA
SOURCE: Biochem. Biophys. Res. Commun. (1994), 204(1), 407-12
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB CGS 26303 is a potent and structurally unique non-peptidic inhibitor of neutral endopeptidase (NEP) capable of protecting atrial natriuretic peptide (ANP) from enzymic degrdn. In addn., CGS 26303 displays modest endothelin-converting enzyme (ECE) inhibitory activity in vitro. Unlike CGS 24592, a potent but selective NEP inhibitor, CGS 26303 significantly blocks endothelin-1 prodn. in rats after exogenous administration of big ET-1 and reduces and mean arterial pressure in spontaneously hypertensive rats during chronic administration. These results suggest that CGS 26303 represents a new class of therapeutic agents with potential benefits for the **treatment** of **cardiovascular** and renal disorders.
IT **154116-31-1**, CGS 26303
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CGS 26303 represents a new class of antihypertensives which act as inhibitors of neutral endopeptidase 24.11 and endothelin-converting enzyme)
RN 154116-31-1 CAPLUS
CN Phosphonic acid, [[[(1S)-2-[1,1'-biphenyl]-4-yl-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



ACCESSION NUMBER: 1994:645784 CAPLUS
DOCUMENT NUMBER: 121:245784
TITLE: Pharmacological profile of a non-peptidic dual inhibitor of neutral endopeptidase 24.11 and endothelin-converting enzyme
AUTHOR(S): Lombaert, Stephane De; Ghai, Rajendra D.; Jeng, Arco Y.; Trapani, Angelo J.; Webb, Randy L.
CORPORATE SOURCE: Pharmaceuticals Div., CIBA-GEIGY Corp., Summit, NJ, 07901, USA
SOURCE: Biochem. Biophys. Res. Commun. (1994), 204(1), 407-12
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB CGS 26303 is a potent and structurally unique non-peptidic inhibitor of neutral endopeptidase (NEP) capable of protecting atrial natriuretic peptide (ANP) from enzymic degrdn. In addn., CGS 26303 displays modest endothelin-converting enzyme (ECE) inhibitory activity in vitro. Unlike CGS 24592, a potent but selective NEP inhibitor, CGS 26303 significantly blocks endothelin-1 prodn. in rats after exogenous administration of big ET-1 and reduces and mean arterial pressure in spontaneously hypertensive rats during chronic administration. These results suggest that CGS 26303 represents a new class of therapeutic agents with potential benefits for the **treatment** of **cardiovascular** and renal disorders.
IT **154116-31-1**, CGS 26303
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CGS 26303 represents a new class of antihypertensives which act as inhibitors of neutral endopeptidase 24.11 and endothelin-converting enzyme)
RN 154116-31-1 CAPLUS
CN Phosphonic acid, [[[(1S)-2-[1,1'-biphenyl]-4-yl-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



ACCESSION NUMBER: 1996:546615 CAPLUS
DOCUMENT NUMBER: 125:275882
TITLE: Phosphono-substituted tetrazole derivatives and analogs as ECE inhibitors
INVENTOR(S): DeLombaert ,Stephane; Jeng, Arco Y.; Ksander, Gary M.
PATENT ASSIGNEE(S): Ciba-Geigy Corporation, USA
SOURCE: U.S., 25 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5550119	A	19960827	US 1995-403353	19950302
WO 9626729	A1	19960906	WO 1996-EP699	19960220
W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9648786	A1	19960918	AU 1996-48786	19960220
PRIORITY APPLN. INFO.:			US 1995-403353	19950302
			WO 1996-EP699	19960220

OTHER SOURCE(S): MARPAT 125:275882
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

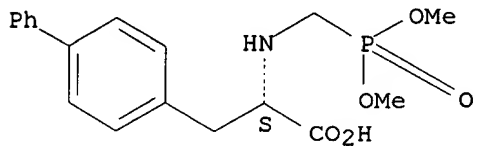
AB The invention relates to N-(phosphonomethyl)-substituted compds. I [R0 = (CH2)nT, XCOR3; n = 0, 1, 2; T = 1H-tetrazol-5-yl; R, R' = H, aryl, 5-indanyl, 6-tetrahydronaphthyl, (un)substituted alkyl, etc.; R1 = (un)substituted Ph, thienyl, furanyl; or R1 = H when R0 = (CH2)nT; R2, R4 = H, alkyl, OH, alkoxy, halo, CF3; R3 = OH or acceptable ester group; X = bond, alkylene, alkenylene], and their pharmaceutically acceptable salts, as well as pharmaceutical compns., prepn. methods, and methods of use. For example, (S)-4-PhC6H4CH2CH(NH-Boc)CO2H [Boc = CO2Bu-tert] underwent amidation with H2NCH2CH2CN, and cyclocondensation with Me3SiN3 via Mitsunobu reaction, to give intermediate tetrazole deriv. II. This underwent deprotection of the Boc-amino group with CF3CO2H, N-alkylation with CF3SO2OCH2P(O)(OMe)2, deprotection of the tetrazole N with aq. NaOH, and hydrolysis of the phosphonate ester with aq. HCl in AcOH, to give title compd. III. In vitro tests of III for inhibition of porcine endothelin-converting enzyme (ECE) and human recombinant ECE gave IC50 values of 1.1 .mu.M and 0.1 .mu.M, resp.

IT **147862-23-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (intermediate; prepn. of phosphono-substituted tetrazole derivs. and analogs as ECE inhibitors)

RN 147862-23-5 CAPLUS

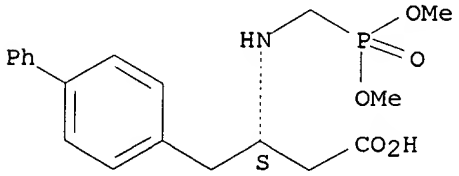
CN [1,1'-Biphenyl]-4-propanoic acid,
.alpha.-[[(dimethoxyphosphinyl)methyl]am
ino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



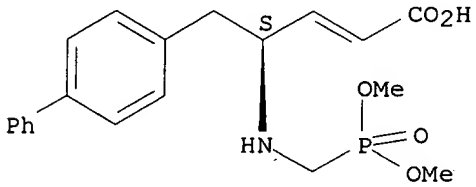
IT **153037-39-9P 182192-87-6P**
RL: BAC (Biological activity or effector, except adverse); RCT
(Reactant);
SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(product and intermediate; prepn. of phosphono-substituted tetrazole
derivs. and analogs as ECE inhibitors)
RN 153037-39-9 CAPLUS
CN [1,1'-Biphenyl]-4-butanoic acid,
.beta.-[[(dimethoxyphosphinyl)methyl]amin
o]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 182192-87-6 CAPLUS
CN 2-Pentenoic acid,
5-[1,1'-biphenyl]-4-yl-4-[[(dimethoxyphosphinyl)methyl]a
mino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

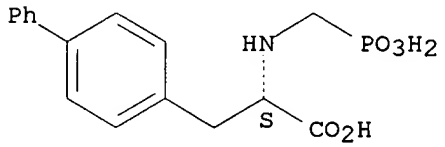


IT **153037-25-3P 153037-26-4P 153037-28-6P**
153037-32-2P 153037-49-1P 154116-31-1P
154116-33-3P 161805-43-2P 161805-48-7P

161805-52-3P 161805-53-4P 182192-83-2P
182192-85-4P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(product; prepn. of phosphono-substituted tetrazole derivs. and analogs
as ECE inhibitors)

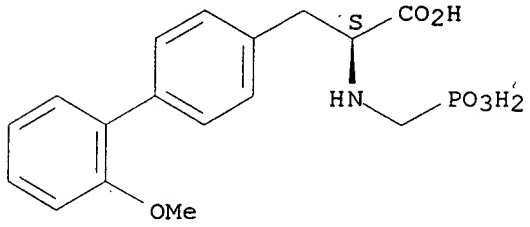
RN 153037-25-3 CAPLUS
CN [1,1'-Biphenyl]-4-propanoic acid, .alpha.-[(phosphonomethyl)amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



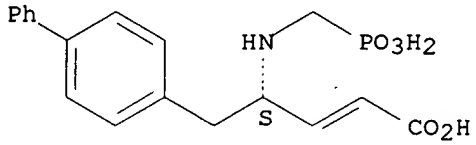
RN 153037-26-4 CAPLUS
CN [1,1'-Biphenyl]-4-propanoic acid, 2'-methoxy-.alpha.-[(phosphonomethyl)amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



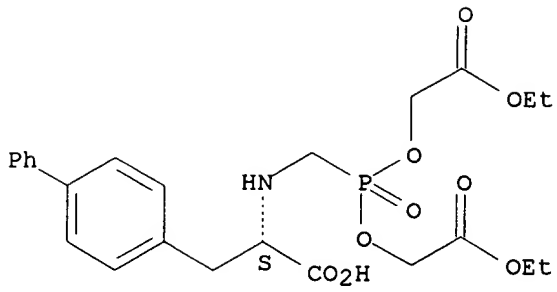
RN 153037-28-6 CAPLUS
CN 2-Pentenoic acid, 5-[1,1'-biphenyl]-4-yl-4-[(phosphonomethyl)amino]-, (S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



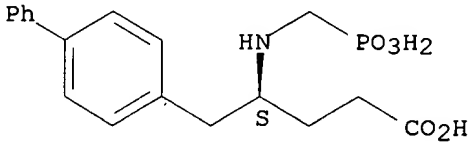
RN 153037-32-2 CAPLUS
CN [1,1'-Biphenyl]-4-propanoic acid, .alpha.-[[[bis(2-ethoxy-2-oxoethoxy)phosphinyl]methyl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



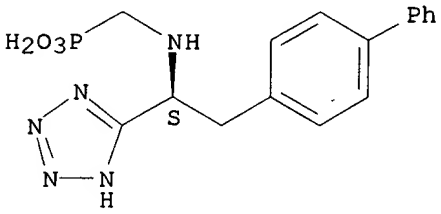
RN 153037-49-1 CAPLUS
CN [1,1'-Biphenyl]-4-pentanoic acid, .gamma.-[(phosphonomethyl)amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



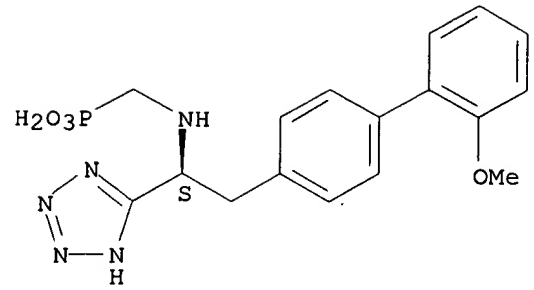
RN 154116-31-1 CAPLUS
CN Phosphonic acid, [[[(1S)-2-[1,1'-biphenyl]-4-yl-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



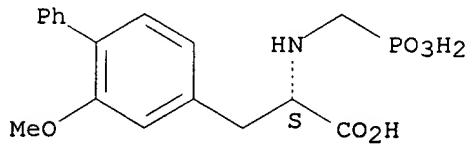
RN 154116-33-3 CAPLUS
CN Phosphonic acid, [[[2-(2'-methoxy[1,1'-biphenyl]-4-yl)-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



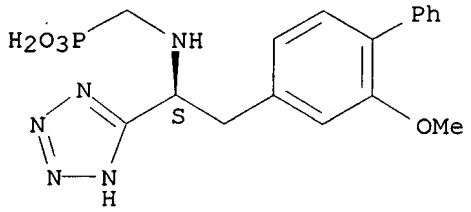
RN 161805-43-2 CAPLUS
CN [1,1'-Biphenyl]-4-propanoic acid, 2-methoxy-.alpha.-[(phosphonomethyl)amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



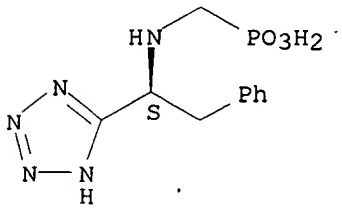
RN 161805-48-7 CAPLUS
CN Phosphonic acid, [[[2-(2-methoxy[1,1'-biphenyl]-4-yl)-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



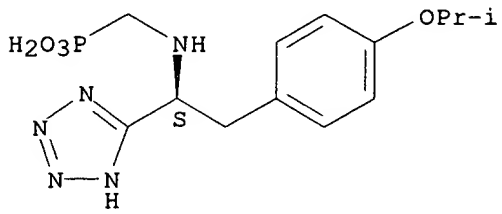
RN 161805-52-3 CAPLUS
CN Phosphonic acid, [[[2-phenyl-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



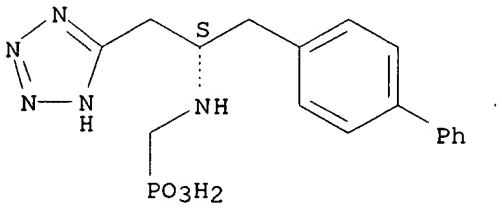
RN 161805-53-4 CAPLUS
CN Phosphonic acid, [[[2-[4-(1-methylethoxy)phenyl]-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



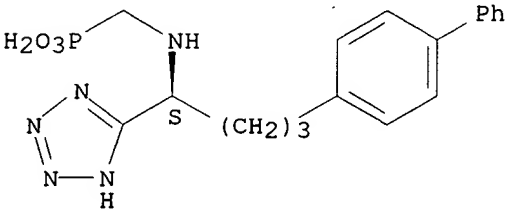
RN 182192-83-2 CAPLUS
CN Phosphonic acid, [[[1-([1,1'-biphenyl]-4-ylmethyl)-2-(1H-tetrazol-5-yl)ethyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 182192-85-4 CAPLUS
CN Phosphonic acid, [[[4-[1,1'-biphenyl]-4-yl-1-(1H-tetrazol-5-yl)butyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



ACCESSION NUMBER: 1996:546615 CAPLUS
DOCUMENT NUMBER: 125:275882
TITLE: Phosphono-substituted tetrazole derivatives and analogs as ECE inhibitors
INVENTOR(S): DeLombaert ,Stephane; Jeng, Arco Y.; Ksander, Gary M.
PATENT ASSIGNEE(S): Ciba-Geigy Corporation, USA
SOURCE: U.S., 25 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5550119	A	19960827	US 1995-403353	19950302
WO 9626729	A1	19960906	WO 1996-EP699	19960220
W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KP, KR, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9648786	A1	19960918	AU 1996-48786	19960220
PRIORITY APPLN. INFO.:			US 1995-403353	19950302
			WO 1996-EP699	19960220

OTHER SOURCE(S): MARPAT 125:275882
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

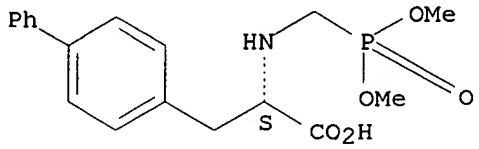
AB The invention relates to N-(phosphonomethyl)-substituted compds. I [R0 = (CH2)nT, XCOR3; n = 0, 1, 2; T = 1H-tetrazol-5-yl; R, R' = H, aryl, 5-indanyl, 6-tetrahydronaphthyl, (un)substituted alkyl, etc.; R1 = (un)substituted Ph, thienyl, furanyl; or R1 = H when R0 = (CH2)nT; R2, R4 = H, alkyl, OH, alkoxy, halo, CF3; R3 = OH or acceptable ester group; X = bond, alkylene, alkenylene], and their pharmaceutically acceptable salts, as well as pharmaceutical compns., prepn. methods, and methods of use. For example, (S)-4-PhC6H4CH2CH(NH-Boc)CO2H [Boc = CO2Bu-tert] underwent amidation with H2NCH2CH2CN, and cyclocondensation with Me3SiN3 via Mitsunobu reaction, to give intermediate tetrazole deriv. II. This underwent deprotection of the Boc-amino group with CF3CO2H, N-alkylation with CF3SO2OCH2P(O)(OMe)2, deprotection of the tetrazole N with aq. NaOH, and hydrolysis of the phosphonate ester with aq. HCl in AcOH, to give title compd. III. In vitro tests of III for inhibition of porcine endothelin-converting enzyme (ECE) and human recombinant ECE gave IC50 values of 1.1 .mu.M and 0.1 .mu.M, resp.

IT **147862-23-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (intermediate; prepn. of phosphono-substituted tetrazole derivs. and analogs as ECE inhibitors)

RN 147862-23-5 CAPLUS

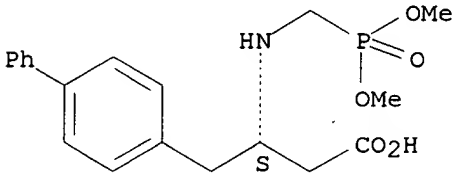
CN [1,1'-Biphenyl]-4-propanoic acid,
.alpha.-[[(dimethoxyphosphinyl)methyl]am
ino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



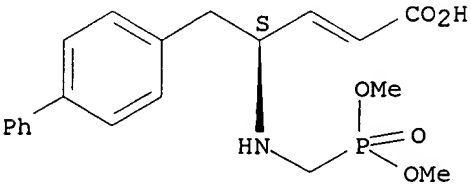
IT **153037-39-9P 182192-87-6P**
RL: BAC (Biological activity or effector, except adverse); RCT
(Reactant);
SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(product and intermediate; prepn. of phosphono-substituted tetrazole
derivs. and analogs as ECE inhibitors)
RN 153037-39-9 CAPLUS
CN [1,1'-Biphenyl]-4-butanoic acid,
.beta.-[[(dimethoxyphosphinyl)methyl]amin
o]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 182192-87-6 CAPLUS
CN 2-Pentenoic acid,
5-[1,1'-biphenyl]-4-yl-4-[[(dimethoxyphosphinyl)methyl]a
mino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

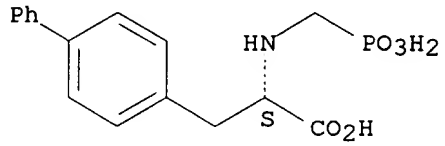


IT **153037-25-3P 153037-26-4P 153037-28-6P**
153037-32-2P 153037-49-1P 154116-31-1P
154116-33-3P 161805-43-2P 161805-48-7P

161805-52-3P 161805-53-4P 182192-83-2P
182192-85-4P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(product; prepn. of phosphono-substituted tetrazole derivs. and analogs
as ECE inhibitors)

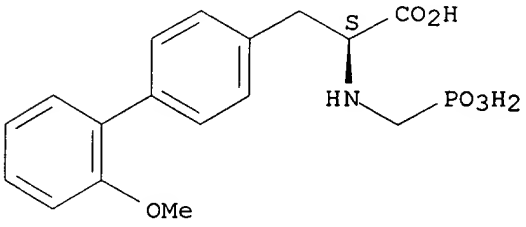
RN 153037-25-3 CAPLUS
CN [1,1'-Biphenyl]-4-propanoic acid, .alpha.-[(phosphonomethyl)amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



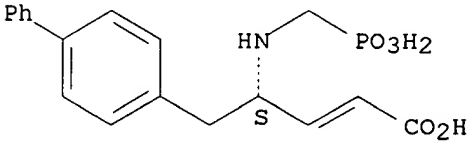
RN 153037-26-4 CAPLUS
CN [1,1'-Biphenyl]-4-propanoic acid, 2'-methoxy-.alpha.-[(phosphonomethyl)amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



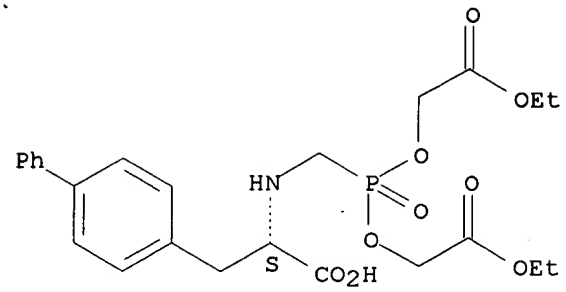
RN 153037-28-6 CAPLUS
CN 2-Pentenoic acid, 5-[1,1'-biphenyl]-4-yl-4-[(phosphonomethyl)amino]-, (S)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



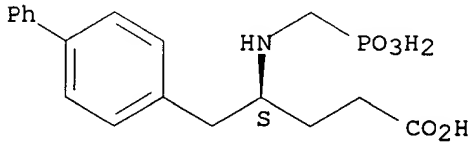
RN 153037-32-2 CAPLUS
CN [1,1'-Biphenyl]-4-propanoic acid, .alpha.-[[[bis(2-ethoxy-2-oxoethoxy)phosphinyl]methyl]amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



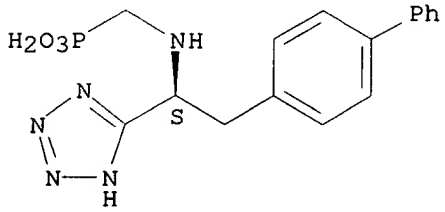
RN 153037-49-1 CAPLUS
CN [1,1'-Biphenyl]-4-pentanoic acid, .gamma.-[(phosphonomethyl)amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



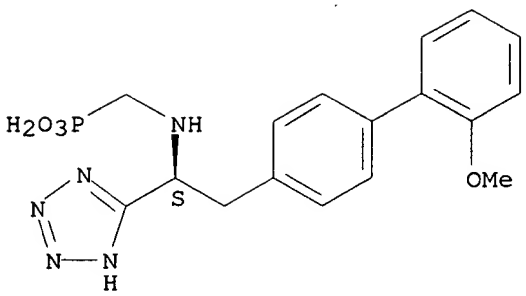
RN 154116-31-1 CAPLUS
CN Phosphonic acid, [[[(1S)-2-[1,1'-biphenyl]-4-yl-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



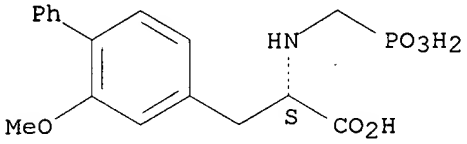
RN 154116-33-3 CAPLUS
CN Phosphonic acid, [[[2-(2'-methoxy[1,1'-biphenyl]-4-yl)-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



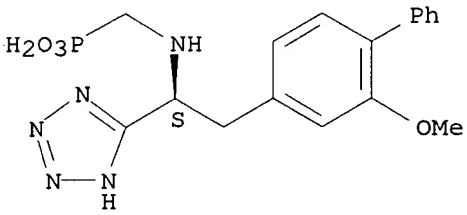
RN 161805-43-2 CAPLUS
CN [1,1'-Biphenyl]-4-propanoic acid, 2-methoxy-.alpha.-[(phosphonomethyl)amino]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



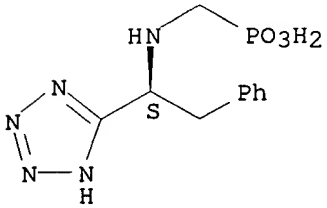
RN 161805-48-7 CAPLUS
CN Phosphonic acid, [[[2-(2-methoxy[1,1'-biphenyl]-4-yl)-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



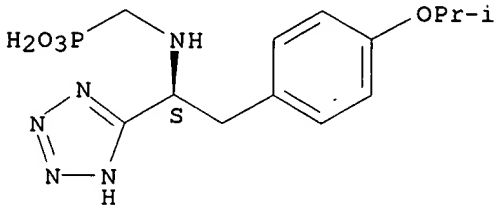
RN 161805-52-3 CAPLUS
CN Phosphonic acid, [[[2-phenyl-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



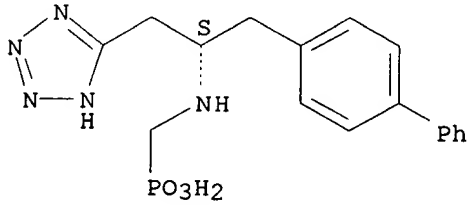
RN 161805-53-4 CAPLUS
CN Phosphonic acid, [[[2-[4-(1-methylethoxy)phenyl]-1-(1H-tetrazol-5-yl)ethyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



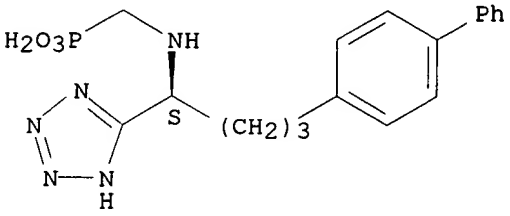
RN 182192-83-2 CAPLUS
CN Phosphonic acid, [[[1-([1,1'-biphenyl]-4-ylmethyl)-2-(1H-tetrazol-5-yl)ethyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 182192-85-4 CAPLUS
CN Phosphonic acid, [[[4-[1,1'-biphenyl]-4-yl-1-(1H-tetrazol-5-yl)butyl]amino]methyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

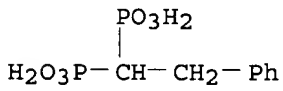


[redacted]SSION NUMBER: 1987:459121 CAPLUS
[redacted]OCUMENT NUMBER: 107:59121
TITLE: gem-Diphosphonate and gem-phosphonate-phosphate compounds with specific high density lipoprotein inducing activity
AUTHOR(S): Nguyen Lan Mong; Niesor, Eric; Bentzen, Craig L.
CORPORATE SOURCE: Symphar S. A., Geneva, Switz.
SOURCE: J. Med. Chem. (1987), 30(8), 1426-33
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 107:59121

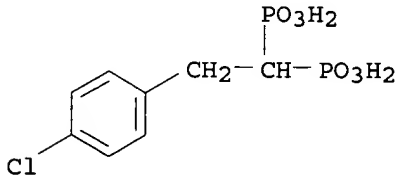
AB Title compds. [(RO)2P(O)]2CR1R2 [R = Me, Et, Pr, Me2CH, Bu; R1 = H, OH; R2 = alkyl, (un)substituted aryl] and (RO)2P(O)CR1R2OP(O)(OR)2 (I; same R-R2) were prepd. and examd. for activity in specifically inducing plasma high-d. lipoproteins (HDL) and HDL-cholesterol (HDL-C) in normal rats. Screening numerous compds. allowed detn. of structural variations leading to optimal plasma lipid-altering activity and antiatherosclerotic potential. I (R = Me; R1 = H; R2 = 4-ClC6H4) (SR-202, mifobate) was selected for further pharmacol. and subsequent clin. development.

IT **10596-19-7P 76541-77-0P 76541-78-1P**
89187-56-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antiatherosclerotic activity of)

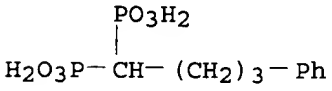
RN 10596-19-7 CAPLUS
CN Phosphonic acid, (2-phenylethylidene)bis- (9CI) (CA INDEX NAME)



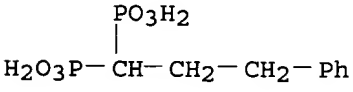
RN 76541-77-0 CAPLUS
CN Phosphonic acid, [2-(4-chlorophenyl)ethylidene]bis- (9CI) (CA INDEX NAME)



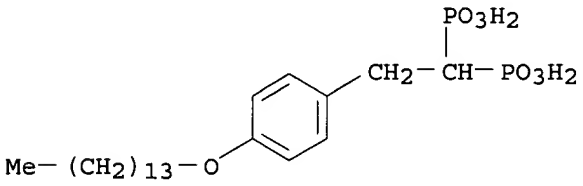
RN 76541-78-1 CAPLUS
CN Phosphonic acid, (4-phenylbutylidene)bis- (9CI) (CA INDEX NAME)



RN 89187-56-4 CAPLUS
CN Phosphonic acid, (3-phenylpropylidene)bis- (9CI) (CA INDEX NAME)



108816-95-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and esterification of)
RN 108816-95-1 CAPLUS
CN Phosphonic acid, [2-[4-(tetradecyloxy)phenyl]ethylidene]bis- (9CI) (CA INDEX NAME)



IT **Atherosclerosis**
(gem-diphosphonates and gem-phosphonate phosphates, high-d. lipoprotein in relation to treatment of)

IT Condensation reaction
(of alkyl phosphites with acid chlorides and phosphonates)

IT 100-39-0, Benzyl bromide 103-63-9, 2-Phenethyl bromide 588-63-6 589-10-6 637-59-2, 3-Phenylpropyl bromide 108003-51-6
RL: RCT (Reactant)
(alkylation by, of gem-tetraalkyl diphosphonate)

IT 104-83-6, p-Chlorobenzyl chloride
RL: RCT (Reactant)
(alkylation by, of gem-tetraalkyl diphosphonates)

IT 1660-94-2
RL: RCT (Reactant)
(alkylation of, by benzyl bromide)

IT 1660-95-3 6997-56-4
RL: RCT (Reactant)
(alkylation of, by chlorobenzyl chloride)

IT 50870-71-8
RL: RCT (Reactant)
(alkylation of, with phenylpropyl bromide)

IT 7664-38-2, Phosphoric acid, uses and miscellaneous
RL: USES (Uses)
(antiatherosclerotic agents, high-d. lipoproteins in relation to)

IT 62443-00-9
RL: RCT (Reactant)
(bromination of)

IT 121-45-9, Trimethyl phosphite
RL: RCT (Reactant)
(condensation reaction of, with acid chlorides)

IT 102-85-2, Tributyl phosphite 116-17-6, Triisopropyl phosphite 923-99-9, Tripropyl phosphite
RL: RCT (Reactant)
(condensation reaction of, with phosphonate)

IT 79-30-1 122-52-1, Triethyl phosphite 3283-12-3 7065-46-5
RL: RCT (Reactant)
(condensation reaction of, with phosphonates)

IT 108816-97-3
RL: RCT (Reactant)
(condensation reaction of, with tri-Bu phosphite)

IT 10570-46-4
RL: RCT (Reactant)
(condensation reaction of, with tri-Et phosphite)

IT 89-75-8 98-88-4 100-07-2 112-67-4, Palmitoyl chloride 122-01-0, 4-Chlorobenzoyl chloride 142-61-0 329-15-7 403-43-0, 4-Fluorobenzoyl chloride 609-65-4 618-46-2 874-60-2, 4-Methylbenzoyl chloride 1711-09-7 2243-83-6 2719-27-9 4521-61-3 5542-60-9 14002-51-8 22328-43-4 36293-05-7 40919-11-7 63293-86-7 81928-54-3
RL: RCT (Reactant)
(condensation reaction of, with tri-Me phosphite)

IT 108816-96-2
RL: RCT (Reactant)
(condensation reaction of, with tri-Pr phosphite)

IT 41097-24-9
RL: RCT (Reactant)
(condensation reaction of, with triisopropyl phosphite)

IT 10419-59-7P **10596-19-7P** 32249-59-5P 32249-63-1P 53235-98-6P 76541-68-9P 76541-69-0P 76541-70-3P 76541-75-8P 76541-76-9P **76541-77-0P** **76541-78-1P** 76541-79-2P 76541-80-5P 76541-81-6P 76552-10-8P 81928-58-7P 89187-47-3P 89187-49-5P **89187-56-4P** 89187-57-5P 108816-47-3P 108816-48-4P 108816-49-5P 108816-50-8P 108816-51-9P 108816-52-0P 108816-53-1P 108816-54-2P 108816-55-3P 108816-56-4P 108816-57-5P 108816-58-6P 108816-59-7P 108816-60-0P 108816-61-1P 108816-62-2P

108816-63-3P 108816-64-4P 108816-65-5P 108816-66-6P 108816-67-7P
108816-68-8P 108816-69-9P 108816-70-2P 108816-71-3P 108816-72-4P
108816-73-5P 108816-74-6P 108816-75-7P 108816-76-8P 108816-77-9P
108816-78-0P 108816-79-1P 108816-80-4P 108816-81-5P 108816-82-6P
108816-83-7P 108816-84-8P 108816-85-9P 108816-86-0P 108816-87-1P
108816-88-2P 108816-89-3P 108834-48-6P 108834-49-7P 108834-50-0P
108834-51-1P 108868-05-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antiatherosclerotic activity of)

IT 1490-12-6P 6918-58-7P 10570-48-6P 18106-71-3P 26583-87-9P
33493-30-0P 33493-32-2P 51463-64-0P 58879-27-9P 68963-39-3P
76387-49-0P 81928-53-2P 81928-55-4P 81928-56-5P 89187-59-7P
89187-60-0P 89187-63-3P 89198-46-9P 108130-19-4P 108816-90-6P
108816-91-7P 108816-92-8P 108816-93-9P 108834-52-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and condensation reaction of, with di-Me phosphite)

IT **108816-95-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and esterification of)

IT 59216-73-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and salt formation of)

=>

DOCUMENT NUMBER: 127:298722
TITLE: **Pharmaceutical** preparation for the treatment of blood coagulation disorders
INVENTOR(S): Turecek, Peter; Schwarz, Hans Peter; Eibl, Johann
PATENT ASSIGNEE(S): Immuno Aktiengesellschaft, Austria
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 796623	A2	19970924	EP 1997-890051	19970318
EP 796623	A3	20000517		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, IE, IT, LI, NL, SE				
AT 9600518	A	19980615	AT 1996-518	19960320
AT 404673	B	19990125		
AT 9601573	A	20000515	AT 1996-1573	19960904
CA 2200394	AA	19970920	CA 1997-2200394	19970319
AU 9716451	A1	19970925	AU 1997-16451	19970320
US 5866122	A	19990202	US 1997-821763	19970320
JP 10045620	A2	19980217	JP 1997-108013	19970321
US 6039945	A	20000321	US 1998-165745	19981006
PRIORITY APPLN. INFO.:			AT 1996-518	19960320
			AT 1996-1573	19960904
			AT 1996-1673	19960920
			US 1997-821763	19970320

AB Patients with hemophilia A who develop inhibitory antibodies to coagulation factor VIII are effectively treated with a stable phospholipid-free compn. contg. a complex of .gtoreq.2 coagulation factors which are components of a prothrombinase or preprothrombinase; .gtoreq.1 of these factors must be activated. The factors may be selected from coagulation factors II, V, Va, X, and Xa, and are purified until free from endogenous phospholipids which might cause thromboembolic side effects. The compn. is not subject to premature thrombin formation; thrombin is formed only at the site of bleeding as a result of contact with cellular phospholipids. Thus, a lyophilized fraction contg. multiple coagulation factors was subjected to adsorption on Ca3(PO4)2, (NH4)2SO4 pptn., and chromatog. on Sephadex G-25, and the coagulation factors were sepd. by ion-exchange chromatog. on DEAE-Sepharose FF; factor II was further purified by hydrophobic interaction chromatog. and ultrafiltration. A **pharmaceutical** formulation contained highly purified factor II, factor Xa, and antithrombin III in citrate buffer (pH 7.0) contg. NaCl (8 g/L), and could be lyophilized without significant loss of activity.

IT **194554-71-7, Tissue factor** pathway inhibitor
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (antidotes for; **pharmaceutical** prepn. for treatment of blood coagulation disorders)
RN 194554-71-7 CAPLUS
CN Proteinase inhibitor, TFPI (9CI) (CA INDEX NAME)

DOCUMENT NUMBER: 127:298722
TITLE: **Pharmaceutical** preparation for the treatment of blood coagulation disorders
INVENTOR(S): Turecek, Peter; Schwarz, Hans Peter; Eibl, Johann
PATENT ASSIGNEE(S): Immuno Aktiengesellschaft, Austria
SOURCE: Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 796623	A2	19970924	EP 1997-890051	19970318
EP 796623	A3	20000517		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, IE, IT, LI, NL, SE				
AT 9600518	A	19980615	AT 1996-518	19960320
AT 404673	B	19990125		
AT 9601573	A	20000515	AT 1996-1573	19960904
CA 2200394	AA	19970920	CA 1997-2200394	19970319
AU 9716451	A1	19970925	AU 1997-16451	19970320
US 5866122	A	19990202	US 1997-821763	19970320
JP 10045620	A2	19980217	JP 1997-108013	19970321
US 6039945	A	20000321	US 1998-165745	19981006
PRIORITY APPLN. INFO.:			AT 1996-518	19960320
			AT 1996-1573	19960904
			AT 1996-1673	19960920
			US 1997-821763	19970320

AB Patients with hemophilia A who develop inhibitory antibodies to coagulation factor VIII are effectively treated with a stable phospholipid-free compn. contg. a complex of .gtoreq.2 coagulation factors which are components of a prothrombinase or preprothrombinase; .gtoreq.1 of these factors must be activated. The factors may be selected from coagulation factors II, V, Va, X, and Xa, and are purified until free from endogenous phospholipids which might cause thromboembolic side effects. The compn. is not subject to premature thrombin formation; thrombin is formed only at the site of bleeding as a result of contact with cellular phospholipids. Thus, a lyophilized fraction contg. multiple coagulation factors was subjected to adsorption on Ca3(PO4)2, (NH4)2SO4 pptn., and chromatog. on Sephadex G-25, and the coagulation factors were sepd. by ion-exchange chromatog. on DEAE-Sepharose FF; factor II was further purified by hydrophobic interaction chromatog. and ultrafiltration. A **pharmaceutical** formulation contained highly purified factor II, factor Xa, and antithrombin III in citrate buffer (pH 7.0) contg. NaCl (8 g/L), and could be lyophilized without significant loss of activity.

IT **194554-71-7, Tissue factor** pathway inhibitor
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (antidotes for; **pharmaceutical** prepn. for treatment of blood coagulation disorders)
RN 194554-71-7 CAPLUS
CN Proteinase inhibitor, TFPI (9CI) (CA INDEX NAME)

ACCESSION NUMBER: 1999:21682 CAPLUS
DOCUMENT NUMBER: 130:90529
TITLE: Therapeutic derivatives of diphosphonates, and a method for preparing them
INVENTOR(S): Hartmann, John F.; Farcasiu, Dan
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 16 pp., Cont.-in-part of U.S. Ser. No. 206,113, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5854227	A	19981229	US 1995-473787	19950607
WO 9640156	A1	19961219	WO 1996-US9271	19960606
W: AU, BR, CA, CZ, HU, JP, MX				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2224067	AA	19961219	CA 1996-2224067	19960606
AU 9660949	A1	19961230	AU 1996-60949	19960606
EP 831845	A1	19980401	EP 1996-918247	19960606
R: DE, ES, FR, GB, IT, SE				
PRIORITY APPLN. INFO.:			US 1994-206113	19940304
			US 1995-473787	19950607
			WO 1996-US9271	19960606

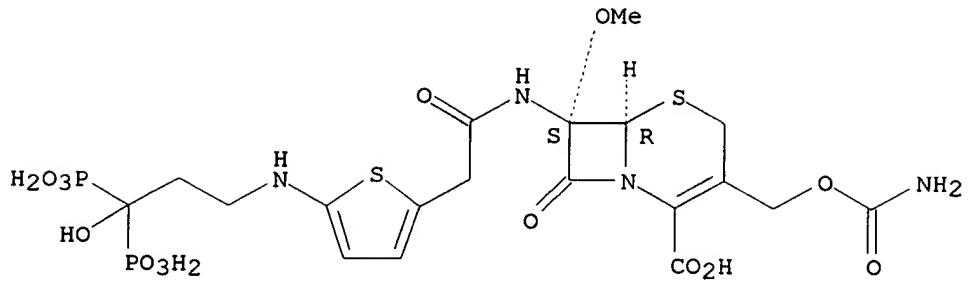
OTHER SOURCE(S): MARPAT 130:90529

AB Chemotherapeutic agents having utility in **treating** infectious diseases, e.g. periodontal disease, certain urinary tract infections, infectious urinary tract stones, and bone **cancer**, are obtained by combining chem. a diphosphonate compd. with a therapeutic agent effective against the foregoing diseases.

IT **186520-45-6P 186520-47-8P 186520-67-2P 186520-71-8P 186520-76-3P 219129-76-7P 219129-81-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (intermediate; therapeutic derivs. of diphosphonates, and a method for prepg. them)

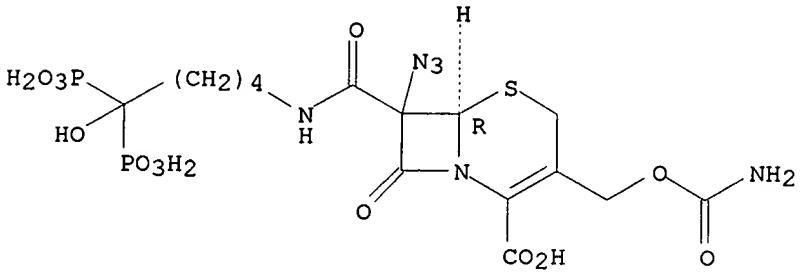
RN 186520-45-6 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[[(aminocarbonyl)oxy]methyl]-7-[[[5-[(3-hydroxy-3,3-diphosphonopropyl)amino]-2-thienyl]acetyl]amino]-7-methoxy-8-oxo-, (6R,7S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



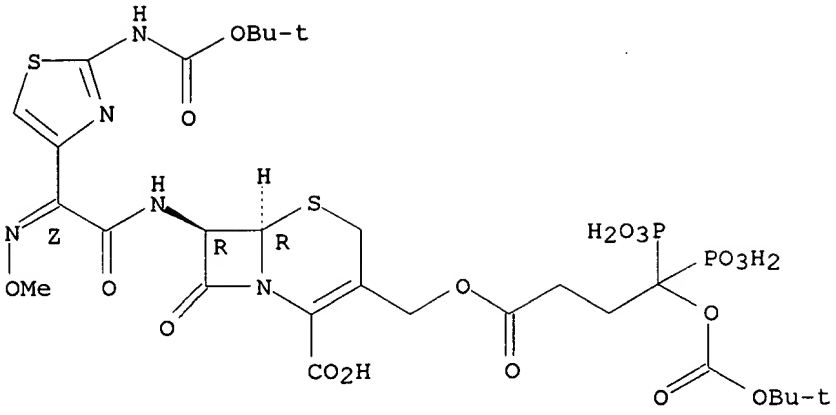
RN 186520-47-8 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[[(aminocarbonyl)oxy]methyl]-7-azido-7-[[(5-hydroxy-5,5-diphosphonopentyl)amino]carbonyl]-8-oxo-, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 186520-67-2 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[(2Z)-[2-[[(1,1-dimethylethoxy)carbonyl]amino]-4-thiazolyl](methoxyimino)acetyl]amino]-3-[[4-[[(1,1-dimethylethoxy)carbonyl]oxy]-1-oxo-4,4-diphosphonobutoxy]methyl]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

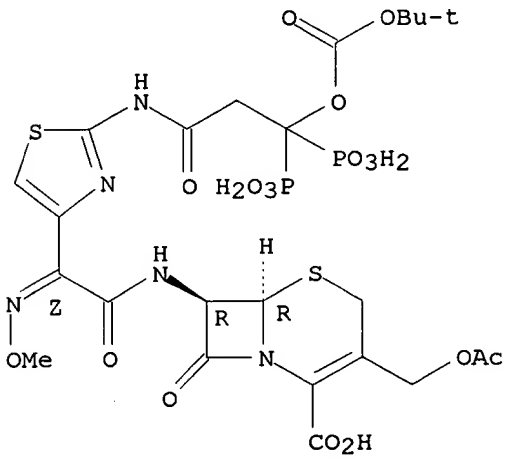


RN 186520-71-8 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,

3-[(acetyloxy)methyl]-7-[[(2Z)-[2-[[3-[[(1,1-dimethylethoxy)carbonyl]oxy]-

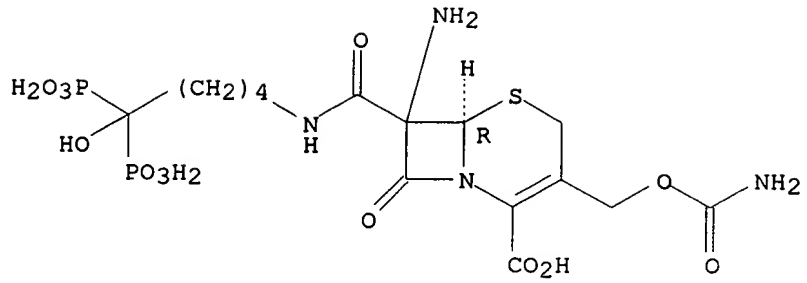
1-oxo-3,3-diphosphonopropyl]amino]-4-thiazolyl](methoxyimino)acetyl]amino]-
8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

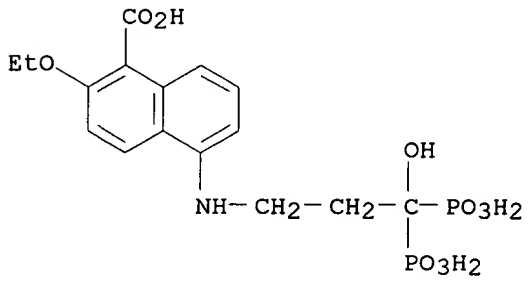


RN 186520-76-3 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,
7-amino-3-[[(aminocarbonyl)oxy]methyl]-7-[[(5-hydroxy-5,5-
diphosphonopentyl)amino]carbonyl]-8-oxo-, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

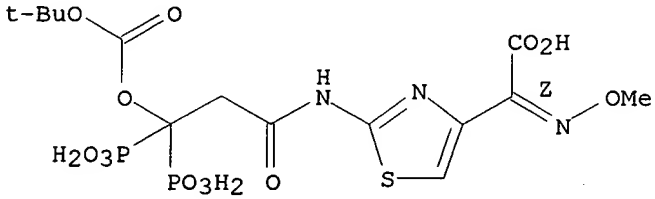


RN 219129-76-7 CAPLUS
CN 1-Naphthalenecarboxylic acid, 2-ethoxy-5-[(3-hydroxy-3,3-diphosphonopropyl)amino]- (9CI) (CA INDEX NAME)



RN 219129-81-4 CAPLUS
CN 4-Thiazoleacetic acid, 2-[[3-[[(1,1-dimethylethoxy)carbonyl]oxy]-1-oxo-3,3-diphosphonopropyl]amino]-.alpha.-(methoxyimino)-, (.alpha.Z)- (9CI) (CA INDEX NAME)

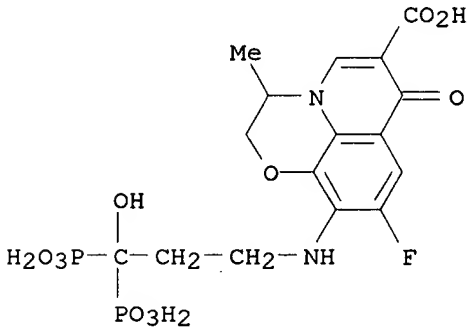
Double bond geometry as shown.



IT **186520-17-2 186520-17-2D**, esters **186520-21-8 186520-21-8D**, esters **186520-36-5 186520-36-5D**, esters **186520-37-6 186520-37-6D**, esters **186520-39-8 186520-39-8D**, esters **186520-45-6D**, esters **186520-47-8D**, esters **186520-48-9 186520-48-9D**, esters **186520-49-0 186520-49-0D**, esters
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(therapeutic derivs. of diphosphonates, and a method for prepg. them)

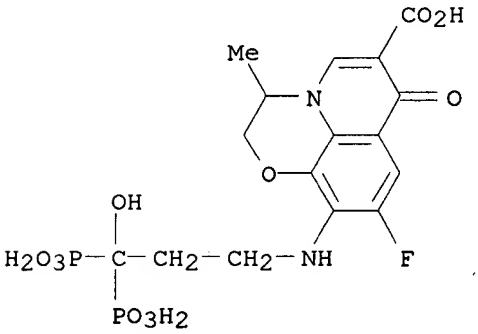
RN 186520-17-2 CAPLUS
CN 7H-Pyrido[1,2,3-de]-1,4-benzoxazine-6-carboxylic acid,

9-fluoro-2,3-dihydro-10-[(3-hydroxy-3,3-diphosphonopropyl)amino]-3-methyl-
7-oxo- (9CI) (CA INDEX NAME)

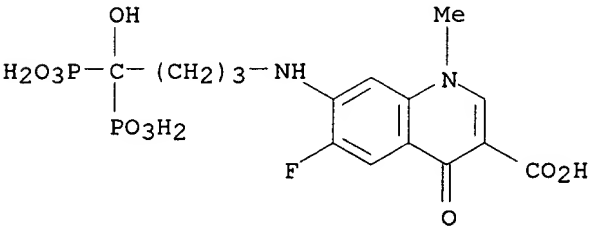


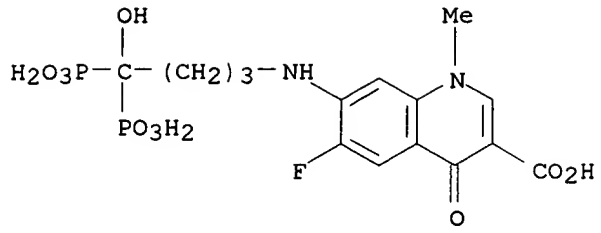
RN 186520-17-2 CAPLUS
CN 7H-Pyrido[1,2,3-de]-1,4-benzoxazine-6-carboxylic acid,

9-fluoro-2,3-dihydro-10-[(3-hydroxy-3,3-diphosphonopropyl)amino]-3-methyl-
7-oxo- (9CI) (CA INDEX NAME)

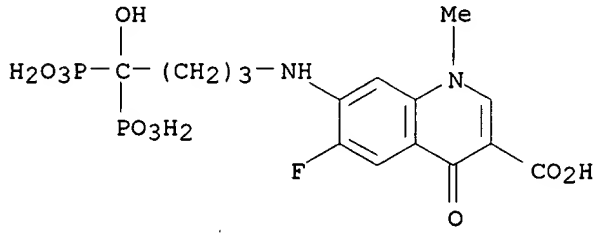


RN 186520-21-8 CAPLUS
CN 3-Quinolinecarboxylic acid, 6-fluoro-1,4-dihydro-7-[(4-hydroxy-4,4-
diphosphonobutyl)amino]-1-methyl-4-oxo- (9CI) (CA INDEX NAME)





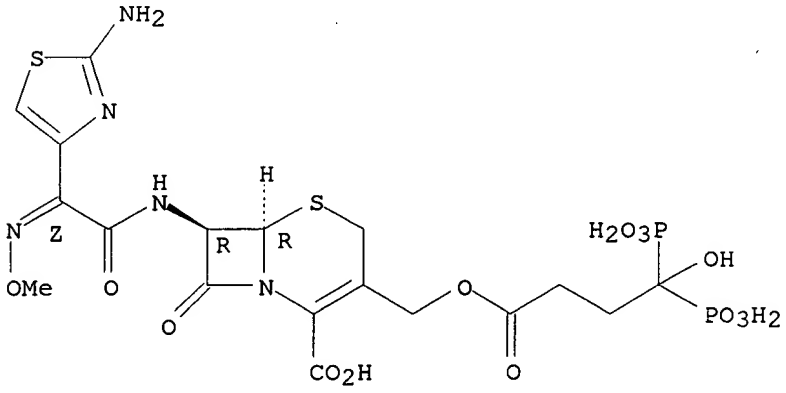
RN 186520-21-8 CAPLUS
CN 3-Quinolinecarboxylic acid, 6-fluoro-1,4-dihydro-7-[(4-hydroxy-4,4-diphosphonobutyl)amino]-1-methyl-4-oxo- (9CI) (CA INDEX NAME)



RN 186520-36-5 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,

7-[[(2Z)-(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[(4-hydroxy-1-oxo-4,4-diphosphonobutoxy)methyl]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

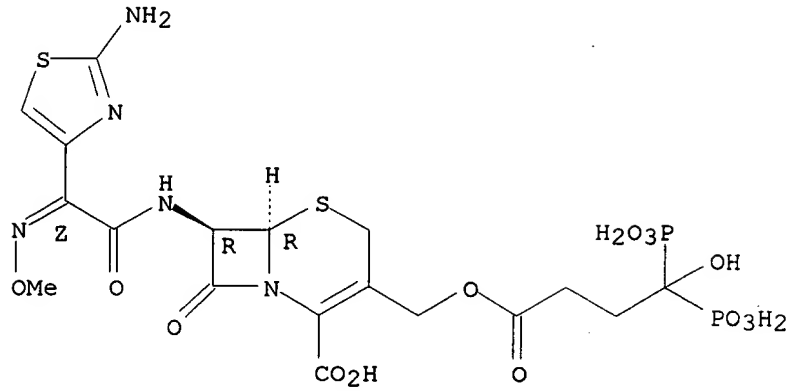
Absolute stereochemistry.
Double bond geometry as shown.



RN 186520-36-5 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,

7-[[(2Z)-(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[(4-hydroxy-1-oxo-4,4-diphosphonobutoxy)methyl]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

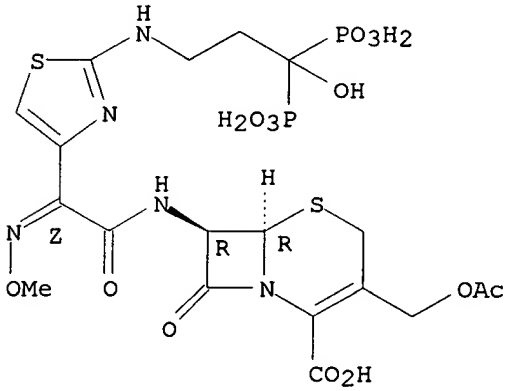
Absolute stereochemistry.
Double bond geometry as shown.



RN 186520-37-6 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,

3-[(acetyloxy)methyl]-7-[[(2Z)-[2-[(3-hydroxy-3,3-diphosphonopropyl)amino]-4-thiazolyl](methoxyimino)acetyl]amino]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

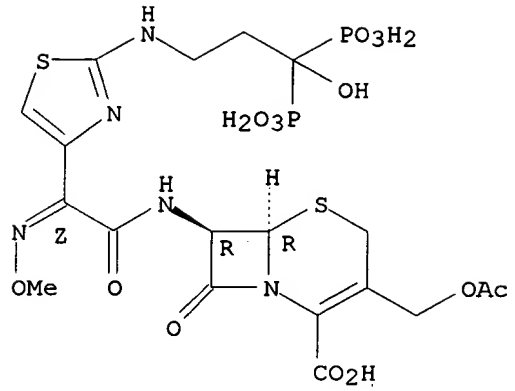
Absolute stereochemistry.
Double bond geometry as shown.



RN 186520-37-6 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,

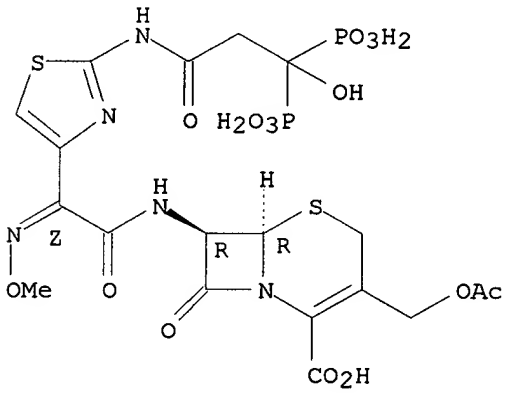
3-[(acetyloxy)methyl]-7-[[(2Z)-[2-[(3-hydroxy-3,3-diphosphonopropyl)amino]-4-thiazolyl](methoxyimino)acetyl]amino]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



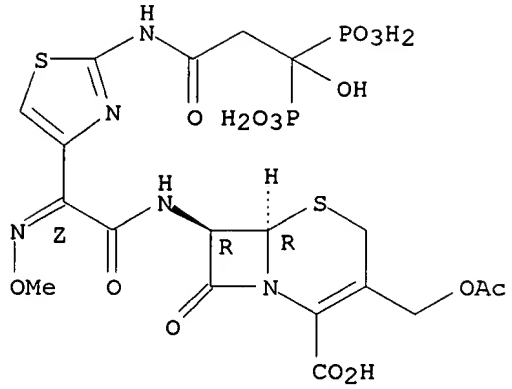
RN 186520-39-8 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(acetyloxy)methyl]-7-[[(2Z)-[2-[(3-hydroxy-1-oxo-3,3-diphosphonopropyl)amino]-4-thiazolyl](methoxyimino)acetyl]amino]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



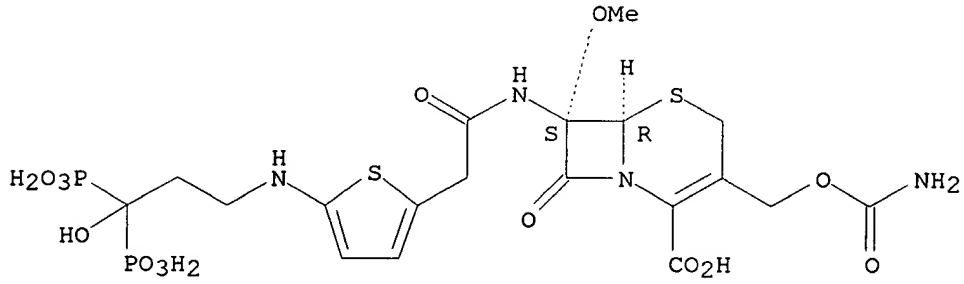
RN 186520-39-8 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(acetyloxy)methyl]-7-[[(2Z)-[2-[(3-hydroxy-1-oxo-3,3-diphosphonopropyl)amino]-4-thiazolyl](methoxyimino)acetyl]amino]-8-oxo-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



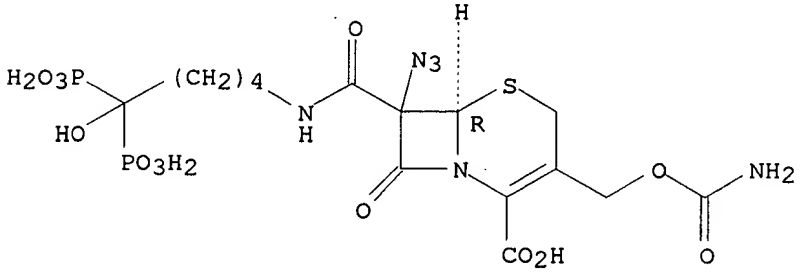
RN 186520-45-6 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[[(aminocarbonyl)oxy]methyl]-7-[[[5-[(3-hydroxy-3,3-diphosphonopropyl)amino]-2-thienyl]acetyl]amino]-7-methoxy-8-oxo-, (6R,7S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



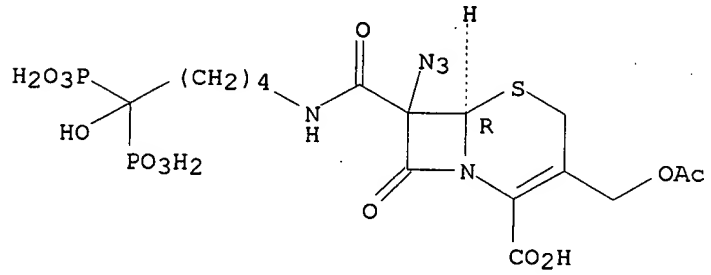
RN 186520-47-8 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[[(aminocarbonyl)oxy]methyl]-7-azido-7-[[(5-hydroxy-5,5-diphosphonopentyl)amino]carbonyl]-8-oxo-, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



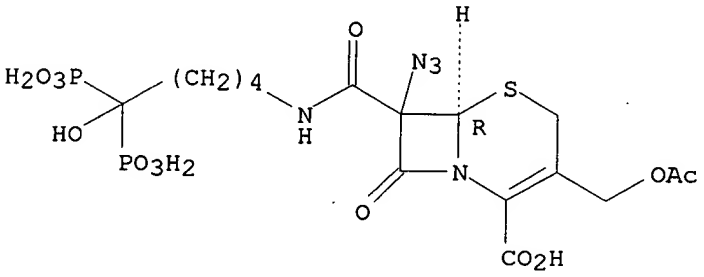
RN 186520-48-9 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(acetyloxy)methyl]-7-azido-7-[[(5-hydroxy-5,5-diphosphonopentyl)amino]carbonyl]-8-oxo-, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



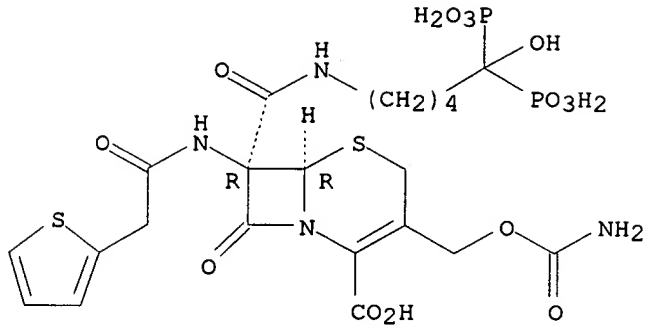
RN 186520-48-9 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[(acetyloxy)methyl]-7-azido-7-[[(5-hydroxy-5,5-diphosphonopentyl)amino]carbonyl]-8-oxo-, (6R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 186520-49-0 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[[(aminocarbonyl)oxy]methyl]-7-[[(5-hydroxy-5,5-diphosphonopentyl)amino]carbonyl]-8-oxo-7-[(2-thienylacetyl)amino]-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 186520-49-0 CAPLUS
CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 3-[[(aminocarbonyl)oxy]methyl]-7-[[(5-hydroxy-5,5-diphosphonopentyl)amino]carbonyl]-8-oxo-7-[(2-thienylacetyl)amino]-, (6R,7R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.